

Anthony Jeselnik Comedy's Roast Host

Pretty Lights

DUI& THC



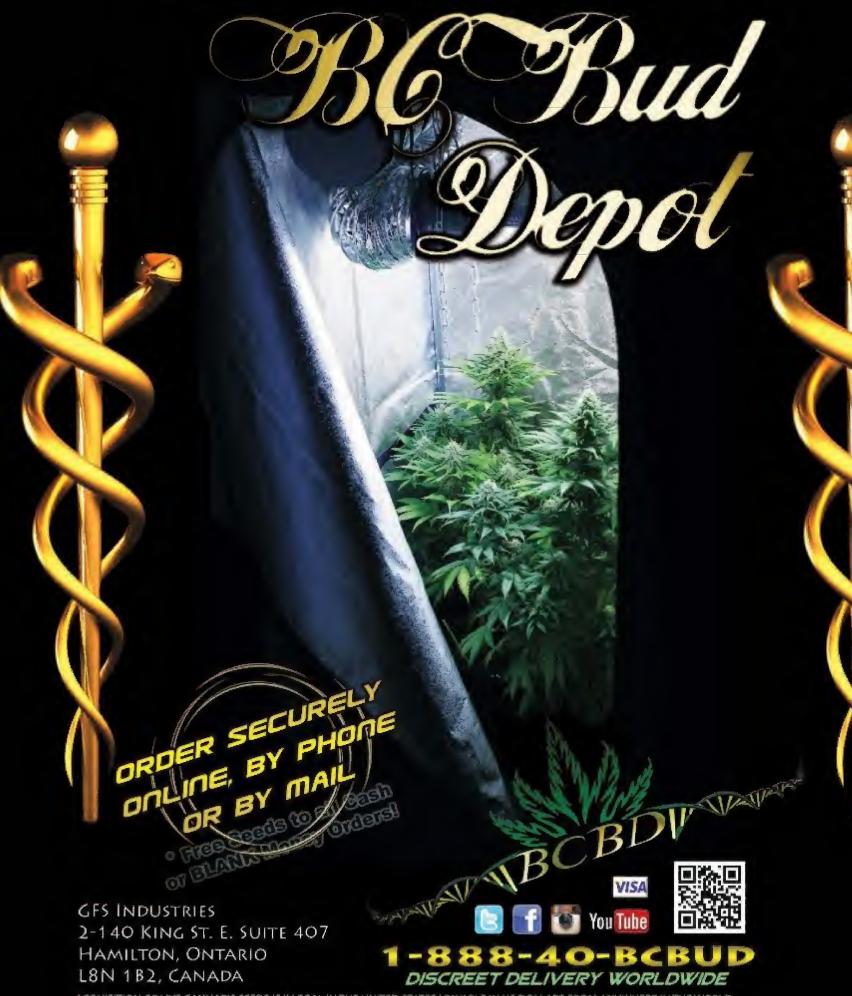
STRAINS OF THE YEAR

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HIGHTIMES DECEMBER



"This is the first time I've seen a facility that is completely dedicated to perfecting the craft of cannabis concentrates," Cumings says. "We're trying to transform extraction from an art into more of a reputable science."

–Bobby and the Concentrate Factory, page 54

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He's the master of the "gut-punch." The star of *The Jeselnik Offensive* sits down for a frank and funny conversation about stand-up comedy.

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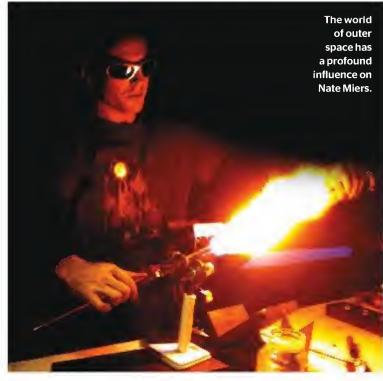


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Glass Artist of the Month



colorful murrine and gold and silver fume, he creates intricate galaxies and nebulae in the glass. Recently, he's has collaborated with artists of distinct, diverse styles—to which he attributes much of his recent rise in popularity—"That, and the fact that not too many people dislike outer space!" he confesses.

Currently working and residing in Evergreen, CO, N8 has been able to create stunning works of art for people of all tolerances to enjoy. "I can't wait to see what the future holds for the pipe and cannabis industries. Cannabis has become legal in two states—likely more in the near future. There should be a lot of hardworking, respected folks who once were afraid to collect pipes—due to their illegality—primed to start supporting dream-chasing glass artists."

Check out N8's work at *hightimes.com/glass*.

POT POLL

What's Your Favorite Strain?

Senior cultivation editor Danny Danko has named HT's Top 10 strains, but we wanted to give readers a shot at acknowledging their favorite bud. At press time, with nearly 1,200 responses, only four were able to garner over 100 votes, with OG Kush leaving other strains in the dust. On the low end, Nigerian Silk was shut out (perhaps because of its relative obscurity), and Kushage got two, while Island Sweet Kush and Snowdog only received three each.

See the results from our list of 33 top strains at high times.com/poll. And vote in our latest poll online!



Nate Miers, a.k.a "N8," started

pia, WA where, due to liberal

functional, handmade smoke-

ware flourishes. With a \$1,200 loan from the local credit union,

N8 doubled down on the notion

that "money follows passion."

He set up his first studio

space in the corner of a drafty

he's found a home in Colorado,

working side by side with some

N8 is best known for inter-

of the most talented artists in

galactic, space-themed pipes,

wherein he creates the night

stoned viewers to gaze upon.

(See nathanmiers.com.) Using

dichroic swirls, flashy opals,

sky in borosilicate glass for

the industry.

garage. A dozen years later,

local attitudes, demand for

blowing glass in 2002 in Olym-

OG Kush...13% (156 votes) **Blue Dream...11%** (131 votes) **Girl Scout Cookies...9%** (104 votes) **Sour Diesel...9%** (101 votes)



Stoner Girls Rock, Part Deux

Editorial director Dan Skye dips into his photo archives for another gallery dedicated to goddesses of the ganja world. Check out his special encore presentation of a photographic tribute to women and their weed!

Laws On Our Side

What a whirlwind of pot law reform it's been this year! Check out how legislatures across the nation dealt with the issue of legal cannabis. On the web, deputy director of NORML Paul Armentano gets you up to speed in "**Pot Law** Reforms Sweep the **Nation**."



Miss December 2013 NAME: Esther PROFILE: queenesther AGE: 33 CITY: Corona, CA OCCUPATION: Bartender, model

To enter or rate contestants, go to *misshightimes.com*. You must be 18 years or older to enter.



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Seattle Washington

Well, Dear Watson, the *Bee Hive Bubbler* is designed for the Sherlock Holmes in all of us or will conjure up good memories of grandpa puffing on his pipe with the duck-billed mouth piece. At only 7.5" tall when not in the Retreat Base and needing slightly more than one tablespoon of water, it is designed for quick and easy use. 14mm male ground joint into an 18mm female ground joint, 4-piece set comes with vessel, base, down stem and slide.

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Flowers Forever: In Praise of Strains

uch of the talk lately in the marijuana community has been focused on concentrates and their surge in popularity among the smoking public. I've heard several prominent pot people say things like, "Now that I'm dabbing every

day, I don't think I'll ever smoke flowers again," while others are against even the purest BHO (butane hash oil) because of the effect that the potency levels-and the images of torches and blown-up homes-might have on our progress toward legalization.



Super Lemon Haze is a Cannabis Cup winner and former Top 10 Strain of the Year.

The truth is, there's a place for concentrates in our world, just as there always has been for hashish, edibles and tinctures. But every concentrate derives its flavor and potency from the strain with which it is made. Without great buds, you can't produce superior concentrates.

This is why, for the ninth consecutive year, I've assembled our list of High Times Top 10 Strains with aroma, flavor and potency in mind. Of course, you could choose to smoke them only in concentrated form, but you'd be missing out on some of the best experiences that come with puffing on finely ground buds, such as rolling up a joint and sharing it with friends. Don't get me wrong: I love a great dab of hash oil or some solventless, icewater-extracted hash as much as the next guy, but you'll never catch me calling buds "pre-run" or saying, "I'll never smoke flowers again." For me, it all starts with the flower.

And with that in mind, we also bring you our Global Pot Report, in which growers and smokers from around the world deliver the details on this year's harvests and most pressing cannabis-related issues. We've also included a story by Erik Biksa on doubling the amount of pot produced in your growroom for the hardcore indoor farmer, and a great piece on professional concentrate-production facilities by my colleague Bobby Black.

Hope you enjoy, and don't forget to stop and smell the flowers!

Kelly Barbieri SENIOR CULTIVATION EDITOR **Danny Danko** Marv C. McEvov

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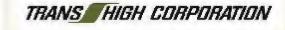
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10 Letters

Sexy vs. Sleazy

I am writing today because of an issue that I almost didn't want to write about, but only because it will probably fall on deaf ears. I have been a loyal High Times reader for many years, and I am also a grower. I appreciate your forwardthinking magazine, and I also appreciate *HT*'s courage in supporting a belief in cannabis and all of its hidden wonders. I commend your magazine's ability to reach out to the masses during times of legal oppression and somehow keep us all informed on the latest news, technologies and events related to my profession. I also thank you because I feel that HT has had a hand in getting the concept of medical marijuana into the mainstream, therefore indirectly helping with the legalization movement.

So now to the point ... I believe in your magazine's cause; however, I feel that you are beginning to objectify women more and more. The advertisements you run are full of nudity, and I really hope that the dabs issue (July '13) isn't a trial run to move in the direction of having models on the cover. Please try to maintain your integrity as a leader in the movement. If I want to look at naked women, I will buy a porno mag. (I'm a pretty good-looking hetero woman, by the way.) The level of nudity seems to be increasing. I don't have a problem with nudity, but I do have a problem with using sex to sell things. Please do not become like the rest of the world, objectifying women as material goods. It's really sad-it's the main reason we, as a culture, are in so much trouble as it is. Have respect for one another and set some standards is all I'm saving. Sara

Vets and Herbal Meds

Hi, my name is Darryl, and I'm a veteran of the US Army. I spent about 16 months in Baghdad serving as the Delta Company supply clerk, armorer and driver. Upon being honorably discharged from the Army, I began self-medicating with any drug possible-mostly opioids and benzodiazepines-in order to escape from my reality. A few months after I was discharged, the VA put me on a drug called Suboxone. That was in 2009-fast-forward to now, and I have been on and off Suboxone (as well as other psychotropic drugs) for four years. So I decided after the successful vote this year to move to Colorado. I went to the VA today to speak to my new doctor and, after a little conversation, he asked me if I was a medical marijuana patient-because if I was, I would need



I've been a reader of High Times since the 1970s, and I just want to say that Chris Simunek wrote a damn good article with "Jamaican Harvest Tour"!

to choose between giving up the medical pot, which helps with my pain, PTSD, depression, nausea, etc., or tapering off the Suboxone in two weeks!

I completely understand that the VA's Suboxone program doesn't allow medical marijuana, but if I'm forced to taper off so quickly, I will still be sick and at a high risk of relapse. But the doctor didn't seem to care: He was completely insensitive and incompetent and showed me absolutely no compassion. I fought and watched people die for this country, so you would think they could at least show me a little compassion at a veterans' hospital.

Sending love and good vibes with this message: Keep up the good fight!

Darryl

A Damn Good Article by Simunek!

I've been a reader of *High Times* since the 1970s, and I just want to say that Chris Simunek wrote a damn good article with "Jamaican Harvest Tour" (Sept. '13)! It reminded me of the great writing you had back in the '70s: It was funny and scary and just a wonderful story! And at the end, it all came together and they found the Garden of Jah with the help of their Rasta brothers! Keep it up, guys—I love the grow articles, but that one took me

Send your letters to Feedback c/o High Times, 250 West 57th St., Suite 920, New York, NY 10107 Email: hteditor@ hightimes.com

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back to a time that a lot of people these days have no

idea of: the days of Thai stick, Santa Marta Gold, Michoacán and Oaxacan buds, Lambs Bread, Haze, Nepalese temple balls and fingers, and so on. Once again, great job, Chris, and keep these kinds of articles coming!

Big - B.

Simunek Not So Damn Good!

I've enjoyed reading this fine magazine for many years now, and most of the time I enjoy reading the Editor's Letter. But I find it rather disturbing that Chris Simunek would use his position to pen down his feelings about Mr. Zimmerman and how he thought his case should end up. When I open up this magazine, I expect to read about pot and the issues surrounding it. If I want to hear BS opinions on a murder trial, there are always the other news sources that thrive on that kind of stuff: CNN, MSNBC, Fox News and so on. Try and focus on the real reason this magazine is printed: the betterment of weed.

Rustyfugger

Ticked Off in Tennessee

Recently, I was given a citation in Tennessee for simple possession. I went for booking and to court, where I pled guilty. I was sentenced to 12 hours of community service and a \$250 fine, plus I have to pass (and pay for) a drug test and "write an essay regarding the Mexican drug cartels and how my activity influences them." I think the last one is especially ludicrous—I buy from local growers and have been pro-pot from the beginning. Sad, sad, sad.

Anonymous

High Times' Zionist Agenda

It has become increasingly transparent to me that your magazine has a Zionist agenda! In the current issue of *High Times* (Oct. '13) you are degrading Zimmerman and promoting a race war! Not only are you guilty of promoting violence, but you are also using your power in the media to distort the facts so future generations never learn the truth. As a longtime reader of your magazine, I am disgusted that you would use these tactics to promote your personal agenda. *Truly Disgusted*

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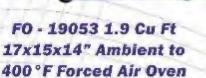


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Contact High

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SEEING DOUBLE These Canadian trimmers, hired by MMAR of Hamilton, Ontario, are cutting their workload in half by sharing the task. Read all about producing a bigger harvest in "Double Your Pot Production" on page 74. *Photo by Dan Skye*

High Times December 2013

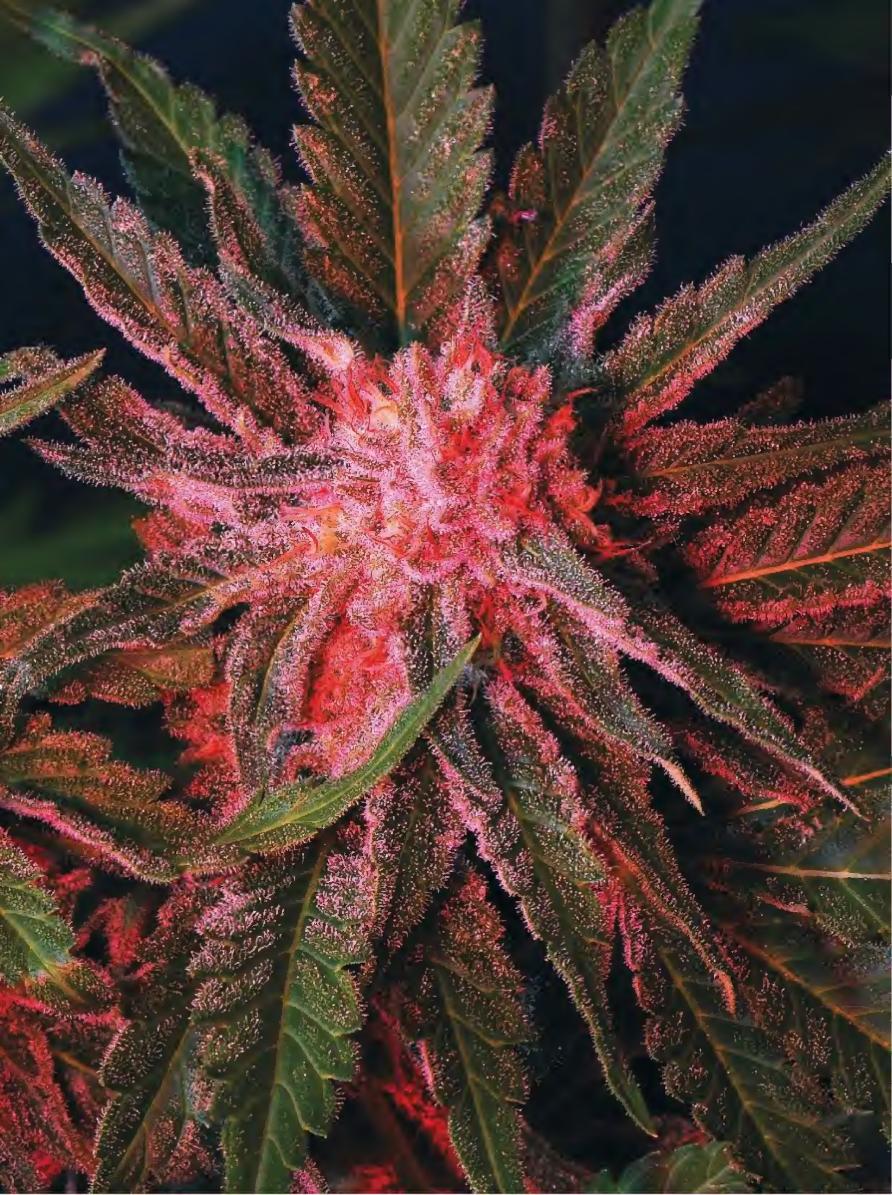


High Times December 2013

Contact High

GLOBAL POT REPORT We're seeing more and more legal marijuana plants being grown worldwide and it's a trend we wholeheartedly support. These beautiful organic Strawberry Cough colas were grown in a perfectly legal medical marijuana greenhouse in Hawaii. Check out our Global Pot Report (page 43) for more photos and correspondence from pot farmers all over the world. *Photo by South Bay Ray*

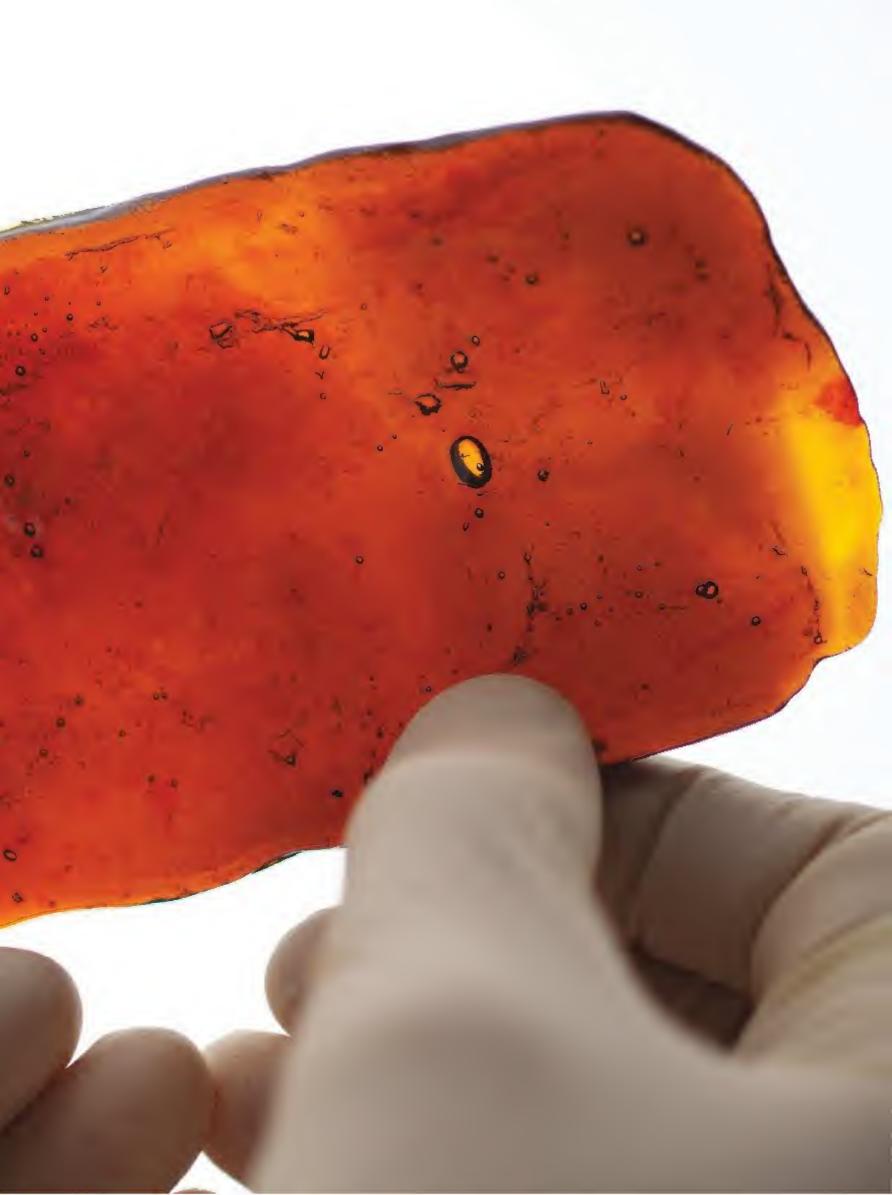
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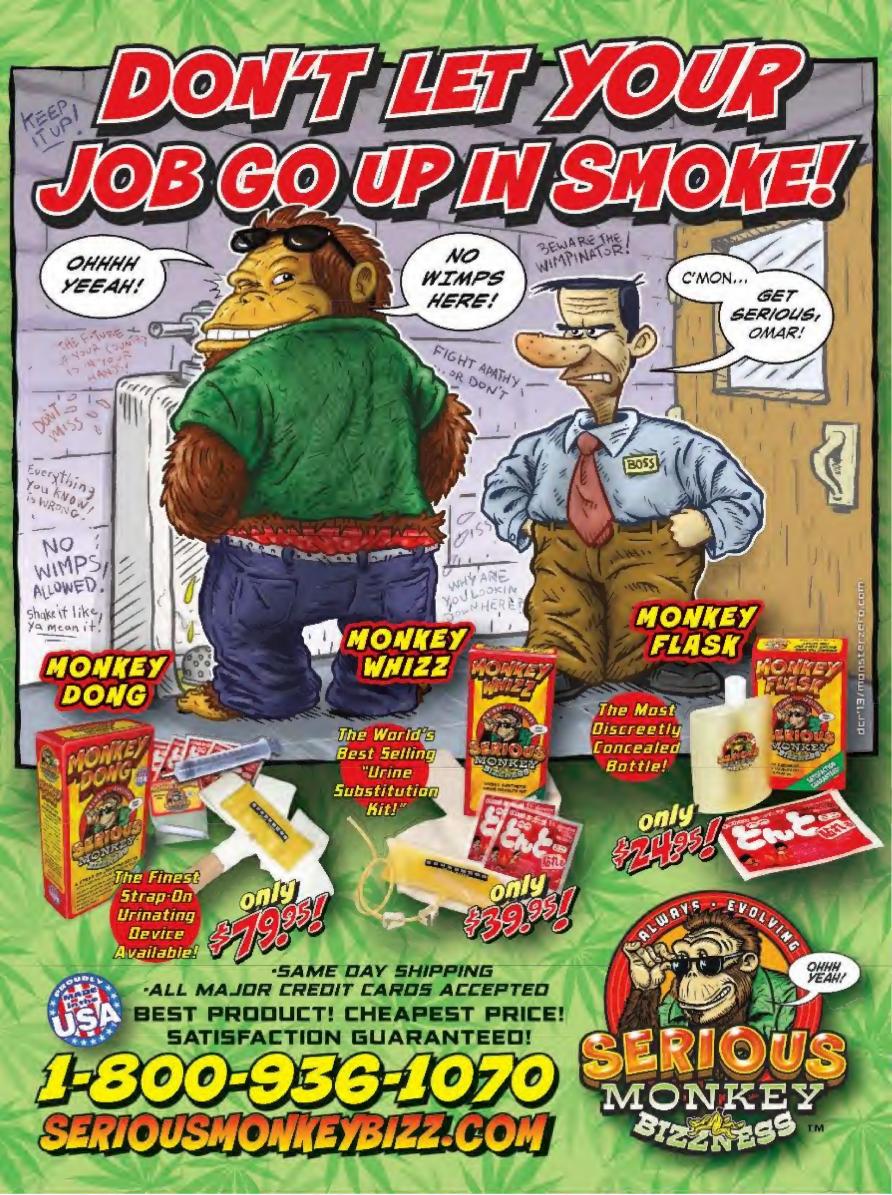


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DAB-ELICIOUS! A dab lab technician displays a fresh slab of shatter. The ability to convert flowers into concentrate has become a highly respected skill in our community. As our industry matures, consumers demand that the cannabis products they ingest are safe, healthy and effective. Senior editor Bobby Black investigates Denver's flourishing butane hash oil industry in his eponymous tale "Bobby and the Concentrate Factory" (page 54). *Photo by Freebie*

High Times December 2013





Highwitness News 19



How High Is Too High to Drive?

The law, science, politics and reality of "drugged driving" laws. By Russ Belville

It's not unusual for cannabis consumers to drive after toking. It's also not unusual for them to drive while toking. Nobody riding with them feels any danger-except from the police. So why do some people who would never drive drunk feel entitled to smoke a joint behind the wheel?

Most states require some demonstrable proof of impairment. Cops can testify that you were weaving or speeding, that they smelled marijuana, that you failed a field sobriety test, or that they tested your urine or blood and found evidence of marijuana use. Then your lawyer can argue against those charges and a judge or a jury can decide if you were truly impaired.

In an increasing number of states, however, laws are being passed that determine your impairment *solely* by the content of your bodily fluids. The worst of these are the so-called "zero tolerance" states, where the detection of any marijuana in your system is proof that you were impaired, even if you were driving perfectly and passed the field sobriety test.

The "zero tolerance" states (meaning those that punish drivers who test positive for any active THC or inactive THC metabolites in their system) include Arizona, Delaware, Georgia, Illinois, Indiana, Iowa, Michigan, Oklahoma, Rhode Island, Utah and Wisconsin. Georgia gives you a mandatory 24 hours in jail for failing the urine test; in Iowa and Utah, you get 48 hours.

The 11 "zero tolerance" states impose what is called a per se standard-a

standard on a test that constitutes proof in and of itself. While their per se standard is any amount of THC or THC metabolites, five other states require a certain level of nanograms (ng, or billionths of a gram) of active THC per milliliter (ml, or thousandths of a liter) of blood as the per se standard. These five states are Montana (5 ng), Nevada (2 ng) Ohio (2 ng) Pennsylvania (1 ng) and Washington (5 ng). Colorado also recently enacted a 5 ng limit but made it a "permissible inference," which allows your lawyer to argue against the alleged proof of impairment.

Thus, we have 17 states-one-third of the country-where the mere presence of pot in your system is proof of guilt if a cop says you're too stoned to drive.

However, testing for THC metabolites

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(K in urine does not determine a driver's current impairment. These metabolites are byproducts of the absorption of THC into a person's bloodstream; they merely show that someone has used marijuana in the past—sometimes as much as 30 days earlier. Thus, a "zero tolerance" law for metabolites is nothing more than discrimination against cannabis consumers who drive.

The science on active THC in the bloodstream isn't reliable either: While some studies show an increased risk of crash with THC concentrations above 5 or 10 ng, the tolerance to THC developed by frequent tokers—including medical marijuana patients—is not accounted for. Even the National Highway Traffic Safety Administration states: "It is difficult to establish a relationship between a person's THC-blood or -plasma concentration and performance-impairing effects."

The agency also notes that most subjects' levels fall below 5 ng three hours after smoking. However, chronic users still register some THC even after 12 hours. So why are these unscientific "drugged driving" standards becoming law?

The exit polling from Proposition 19, California's unsuccessful 2010 legalization attempt, indicated the biggest concern that turned a "yes" vote into a "no" vote was the fear of stoned driving. This fact prompted Washington's successful

It is imperative that the public recognize that marijuana is not alcohol and doesn't lead to the impaired judgment of drunkenness.

Initiative 502 campaign to include a per se standard of 5 ng in its legalization law. Colorado's Amendment 64 didn't include a per se standard, but once the legalization effort was successful, lawmakers made six separate attempts to pass such a limit. Activists testified and threw all the existing science on the table to defeat the proposals—but a last-minute compromise, with the "permissible inference" defense, still included a form of the 5 ng limit on the books.

Politics is often about perception, not reality. The public generally believes that prohibiting marijuana somehow removes it from use. In their minds, legalization adds a whole new drug to the spectrum of available drugs. People associate drinking with drunk driving, accidents and death. Marijuana activists haven't helped matters with the "treat it like alcohol" drumbeat. Now the public wants the equivalent of an alcohol Breathalyzer for marijuana, especially when a state trooper can't arrest a "stoned" driver merely for having weed in his pocket.

It is imperative that the public recognize that marijuana is not alcohol and doesn't lead to the impaired judgment of drunkenness.

We need to acknowledge that people already smoke marijuana and some of them drive—yet traffic accident and fatality rates continue to decline, even in states that have passed medical marijuana laws.

Furthermore, per se laws waste police and court time and taxpayer money by busting drivers who are not impaired. Denver *Westword* columnist William Breathes had his blood tested at more than twice Colorado's new limit after he'd abstained from marijuana use for over half a day. Seattle's KIRO News conducted trials in which a medical marijuana patient began the test at three times the legal limit and was still driving satisfactorily at seven times the limit. Studies show that marijuana-using drivers tend to drive slower, leave more room between vehicles and exhibit less aggressive driving. *****

Editor's note: High Times does not encourage smoking pot while driving. While it may be a debatable safety concern, it can be a distraction, just as texting, reading or eating can compromise safety for drivers. Listen to the Russ Belville radio show at radicalruss.com.

Stay Away!

If you visit these countries, don't even think about smoking marijuana. By Mark Miller



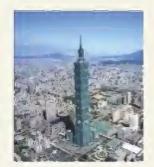
Malaysia

In June, three men who had previously escaped capital punishment for selling weed were retried on the same charges, convicted and sentenced to death by hanging. Being busted with just a half-ounce here will get you prosecuted as a dealer. And don't forget the rest of Southeast Asia: In neighboring Singapore and Thailand, even petty possession will put you behind bars.



Saudi Arabia

Non-Muslims can't enter the holy cities of Mecca and Medina. But if you're a toker, don't bother entering Saudi Arabia at all. Despite plentiful hash, simple possession can earn you six months in prison. Also, drug-trafficking executions are on the rise. The only upside: If you've got the bucks, you can typically escape incarceration and even the death penalty.



Taiwan

Most people think of Taiwan, a constitutional republic, as the "good guys" in their struggle for independence with China. But it's Taiwan that has the more oppressive pot laws: The police are everywhere, and you can get three years for possession. As usual with pot repression, strict enforcement keeps prices sky-high and quality is lacking.



Cyprus

A possession bust in this eastern Mediterranean island nation could net you eight years behind bars. If you possess over an ounce or grow more than three plants—*bam!* you're automatically a dealer. Also, forget trying to score in nightclubs, where undercover cops lurk. And if you're caught smoking in public, you'll be busted and possibly beaten by police on the way to jail.



South Korea

Here you can be incarcerated for smoking *outside* the country, as Korean rapper Crown J discovered when he was jailed for eight months in 2011—for getting high while in Atlanta! As a tourist, you can be urine-tested by the police. If you're busted, you'll be lucky to be banished: You could be pressed to name other tokers and your dealer to escape imprisonment.

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Thicke's Marijuana Muse

In an August interview with UK daily tabloid *The Sun*, pop superstar Robin Thicke told the world: "I do smoke. Weed is my crutch, my muse, the lesser of all evil." He revealed that he uses pot for what he describes as a bad knee "I can get medical marijuana when I'm at home [in LA]. It's a non-stop chimney."

He also candidly estimated that, over the years, he's "spent a good £320,000 on pot."

Really? That works out to nearly a halfmillion US dollars. Let's do the math. Keeping in mind that Thicke, the son of TV celebrity Alan Thicke, has led a financially privileged life, let's assume that he started toking at the fairly realistic starting age of 18. This means that Thicke, now 36, has spent almost \$28,000 annually-roughly \$2,300 a month—on pot during adulthood. That breaks down to \$77 a day, approximately a quarter-ounce of quality bud according to current LA dispensary prices.

His pricey "muse" seems to be working overtime. "Blurred Lines," his massive summer dance hit, topped Billboard's album and digital charts.

<complex-block>

Are the Feds Seeing the Light?

In an August speech at the American Bar Association's annual meeting, Attorney General Eric Holder said this: "While aggressive enforcement of federal criminal statutes remains necessary, we cannot simply prosecute or incarcerate our way to becoming a safer nation."

We can't shout "Hallelujah!" yet, but the Obama administration has promised to imple-

ment a major shift in policy, one that sidesteps federal mandatory minimum sentencing for low-level drug offenses. Holder stressed the importance of avoiding mandatory minimums for drug-related offenders: "Too many Americans go to too many prisons for far too long and for no good law enforcement reason ... Although incarceration has a role to play in our justice system, widespread incarceration at the federal, state, and local levels is both ineffective and unsustainable."

Holder stressed the "economic burden" associated with incarceration, which came to \$80 billion in 2010 alone.

The plan from the Justice Department to reduce incarceration involves allowing state courts to handle more cases, which would subject fewer offenders to federal charges, which would in turn, subject fewer offenders to mandatory minimums. This is a means of sidestepping the issue because, while Holder supports empowering judges to use their discretion regarding mandatory minimums, it would require a change in law for them to do so.

While these policy changes don't nullify the mandatory minimum sentencing law, they can have a major impact on the prison system by effectively sidestepping such sentencing. After all, in 2012, 75 percent of federal mandatory minimum sentences were for drug offenses, and nearly half of all people serving time in federal prison were sentenced for drug-related crimes.



Michigan Makes a Medical Mess

Parents of autistic children in Michigan were dealt a crushing blow in August after the state's Medical Marijuana Review Panel rejected, by a 7-2 vote, a petition to add autism as a qualifying ailment to obtain and use medicinal cannabis. Autistic children have received astounding benefits from medical pot, but panel member and medical professional Jeanne Lewandowski expressed concerns over exposing children to psychoactive cannabis, obviously influencing the rest of her peers with the unfounded scare tactic. The panel also rejected asthma as a qualifying condition. There was some good news; veterans suffering from PTSD will now be legally able to medicate themselves with cannabis.

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Decemperation Times

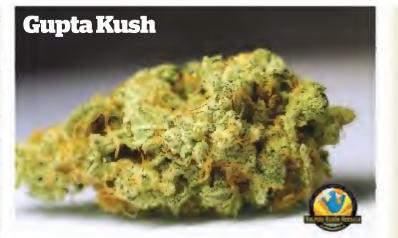


Spies 'R' U.S!

Just when we thought the DEA couldn't go any lower, it's branched out to become another creepy, quasi-intelligence agency! Documents reviewed by *Reuters* reveal that a two-decades-old, covert DEA unit has conducted clandestine surveillance of US citizens via intelligence intercepts, informants and wiretaps, assembling an enormous database of phone records.

Dubbed the Special **Operations Division** (SOD), DEA agents were trained to "recreate" (read: falsify) the trail of evidence to cover up the true origin of SOD investigations, concealing the reality of their inquiries not only from defense attorneys, but also from prosecutors and judges. Agents were ordered to eliminate any and all references to SOD from investigative reports, affidavits, prosecutorial conversations and court testimony. They also have an Orwellian term for this shady procedure-"parallel construction."

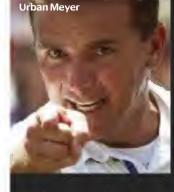
SOD was created in 1994 to combat drug cartels, but has since evolved into a "partner agency" with the CIA and NSA. It rarely, if ever, seems to investigate matters of national security. So why the secrecy? If the SOD is hiding evidence from prosecutors and judges, whose side is the SOD/DEA actually on? Its own?



Following CNN correspondent Dr. Sanjay Gupta's stunning reversal on pot, "Gupta Kush" debuted at Helping Hands Herbals of Boulder, CO. (It's an in-house hybrid of Hindu Kush, Silverback and Blue Train, good for pain and anxiety.) But a day later, Helping Hands says a CNN rep called and politely requested a name change. Marketing director Daniel Taras doesn't believe it was a hoax, but CNN never called back. Meanwhile, Gupta Kush is a hot seller.

Chiefs & Cheeba

In August, the Canadian Association of Chiefs of Police passed a resolution to issue tickets to anyone busted with 30 grams or less. The Chiefs aren't backing legalization-or even decriminalization. Rather, issuing tickets will streamline the process of dealing with petty possession cases and reduce law enforcement expenditures. The new system also allows the offender to avoid a criminal conviction on his/ her record. Canadian federal law must first be changed before the the proposal can be implemented. However, the ruling Conservative Party isn't too keen on any semblance of pot law reform.



Urban's Blight

In an August episode of *SportsCenter's Sunday Conversation* on ESPN, Ohio State football coach Urban Meyer weighed in on

the biggest problem in sports today. His answer: "There's an issue in college athletics. Certain substance things I see. It's non-stop. That's an issue right now in college sports—marijuana. I see it, not just in college football. I see it everywhere. That's an issue."

Host Chris Fowler reminded Meyer that pot is legal in many states. But Meyer knew all. "I hear

that debate all the time. 'What's the difference with a 17-year-old having a beer?' But that's illegal. Last I checked, we're not in the business of making laws, we just have to abide by them and set the tempo."

Funny you should mention the law, Coach. At the University of Florida, 31 of your players were arrested during nearly six years as Gators' coach. Some were charged with minor crimes like underage drinking, disorderly conduct, and violations of open-container laws. But more serious charges included aggravated stalking, domestic violence by strangulation, aggravated assault, burglary, larceny and fraudulent use of credit cards, according to criminal record databases. Most of cases never went to trial; charges were dropped or pleaded down.

So much for abiding by the law. It seems the real "biggest problem in sports" is the players themselves—and win-at-all-cost coaches.

Fighting Diabetes with the Dank

Cannabis use is often associated with expanding waistlines, but new scientific research indicates that the opposite is true. According to researchers, cannabis may hold the key to effectively reducing incidences of obesityrelated illness, particularly type II diabetes.

Writing in the *American Journal of Medicine*, Harvard Medical School researchers reported that habitual cannabis consumers possess favorable indices related to diabetic control as compared to occasional consumers or nonusers of the substance. "Subjects who reported using marijuana in the past month had lower levels of fasting insulin and HOMA-IR [insulin resistance], as well as smaller waist circumference and higher levels of HDL-C [highdensity lipoprotein or 'good' cholesterol]," the authors concluded.

Even more remarkable are the findings of a separate observational study published in the *British Medical Journal*.

Investigators at the UCLA assessed the association between pot use and adult onset diabetes in a sample of 10,896 adults. They reported that past and present cannabis consumers possessed a lower prevalence of type II diabetes, despite all groups possessing a similar family history of the disease. "Our analysis of adults aged 20-59 years ... showed that participants who used marijuana had a lower prevalence of diabetes and lower odds of diabetes relative to nonmarijuana users."

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HIGHWIRE

Dispatches from the international drug war. By Bill Weinberg



Mexican Drug War Shows No Sign of Ending

One year into his term, Mexican President Enrique Peña Nieto's carefully cultivated image of rebooting his country's failed War on Drugs is starting to look like more of the same. Since May, he has deployed thousands of army troops and federal police to the central-western state of Michoacán, seeking to regain control of large rural areas effectively under the control of the Knights Templar narco gang. His predecessor, Felipe Calderón, earned widespread criticism for his militarization of the Drug War, and Calderón's home state of Michoácan was a special focus. A brief lull in violence after Peña Nieto again flooded the state with troops was broken in July as presumed Knights Templar gunmen attacked federal police checkpoints on Michoacán's coastal highway and ambushed police convoys-or fought back when the police attacked the narcos' own roadblocks. The death toll reached 29 over just three days.

Zetas Boss Busted ... Kid Brother Ascends?

On July 13, Mexican naval forces captured Miguel Angel Treviño Morales, head of the dreaded Zetas



Several Tons of Cannabis Seized in Colombia

Colombia's National Police announced the seizure of three tons of marijuana in the country's southwest region on July 28. Units of the traffic and transport police discovered the herb in a truck stopped at a checkpoint on a road between the towns of Villarrica and Candelaria. The bust took place on the same route where the police have carried out operations resulting in several other major seizures this year. Two men were arrested at the scene, and cops have said they will be charged with the possession, manufacture and trafficking of drugs.



cartel, who was apprehended with two lieutenants in a pickup truck in Nuevo León. Treviño and his henchmen reportedly surrendered without firing a shot as a military helicopter began tailing their vehicle from their air.

Code-named Z-40, Treviño assumed leadership of the notoriously blood-drenched Zetas following the death of the narco-paramilitary network's founder, Heriberto Lazcano, in October 2012. Before that, he had been the number-two man in the network, which began in the 1990s as the paramilitary wing of the Gulf Cartel but broke with the parent organization in 2010 in its own bid for supremacy.

Treviño controlled the strategic entrepôt of Nuevo Laredo, which was the scene of much horrific violence between the Zetas and the Gulf Cartel. Authorities believe that leadership of the Zetas will now pass to Treviño's younger brother, Omar Treviño Morales, codenamed Z-42.

Massacre in Chihuahua Opium Enclave

According to authorities in Mexico's Chihuahua state, police discovered the bodies of six men in a remote mountain village after several homes and cars were set ablaze. A July 23 statement from state prosecutors announced that two of the victims found in the village of Mesa de la Reforma had been decapitated, and all six were shot. Four of the victims were wearing lawenforcement uniforms and bulletproof vests, but are not believed to have been police officers

or soldiers. Investigators also found more than 380 spent cartridges from automatic rifles. The village is in the municipality of Guadalupe y Calvo, in the heart of northern Mexico's so-called "Golden Triangle," which is the center of marijuana and opium production in the country.

Colombian Coca Repression Leads to General Strike

Labor strikes swept through Colombia in July, as truckers, healthcare workers, coffee farmers and miners walked off the job. The wave of strikes began in June, when *campesinos* in the northeastern Catatumbo Valley stopped work, took to the streets, and eventually blocked roads and clashed with security forces as they demanded the suspension of the government's cocaeradication program. The violence between police and farmers led to the death of four protesters

and was condemned by the United Nations. The FARC guerrilla movement has expressed its support for the strikers, even offering to arm the peasants in Catatumbo to defend themselves against police. This proposal was rejected by the *campesinos*.



Pro-Coca Lawmaker Imprisoned in Peru

On July 30, the First Supra-Provincial Court of Lima issued an order of preventative detention against former lawmaker Nancy Obregón on suspicion of narco-trafficking and "collaboration with terrorism." Obregón, who rose to prominence as a leader of the Peruvian National Confederation of Cocaleros, a group representing peasant coca growers, was taken into custody by troops of the National Anti-Drug Directorate and turned over to judicial authorities for interrogation. She was elected to Congress in 2006, pledging to fight for the "decriminalization and industrialization of the coca leaf" as well as official recognition of the plant's "cultural patrimony." 💥

For updates on these and other stories, see Bill Weinberg's websites, GlobalGanjaReport.com and WorldWar4Report.com.





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Sample Heavy

Electro party king Pretty Lights sheds high wattage on his flowering music career and his days as a grower. *By Sarah Renfro*

When Derek Vincent Smith, a.k.a. Pretty Lights, burst onto the electronic music scene back in 2006, it was clear that he had what it takes to overcome the pitfalls of a confused and ever-changing industry. His fan base has grown exponentially through word of mouth and free access to his eclectic, boundary-pushing catalog. With the recent release of A Color Map of the Sun, Smith shows no signs of slowing down. We had the opportunity to chill on his tour bus and ask a few questions about his growing success. And you'd better believe that's a double entendre.

You've gained a following by giving your music away. What were the early days of your career like?

When I was trying to become a professional touring musician, peer-to-peer downloading post-Napster was in the Soulseek era. I never imagined the project would grow to the size it has; I just wanted to come out of as many speakers as possible. Downloads for my second album went from 100 a month to 15,000.

How'd that happen?

A combination of word of mouth and free access. People were so ready for something new. It moved from jam band scenes to the electronic world, and now it's getting popular in the hip-hop world. The crossover is dope, because it connects all those genres. I had to weigh the potential backlash from my fans if I were to switch on them.

A lot of people will say you're devaluing your art, right? I don't like to look at it like that. I'm going to make it whether or not I make a million dollars or \$100.

Does the sale of your music help support the tours, or do the tours pay for themselves?

The tours definitely support the music. It's a flipped

model. It allows me to not deliver pizzas. That's how independent musicians succeed now.

Did you ever deliver pizzas?

Calzones and pizzas. I actually managed a calzone shop. They named one after me called the D-Zone—that was my rap name. I got fired because I shut the store down early when they were on vacation to go to my homies' first production set. That was my last job, but I still needed some way to sustain myself while I honed my craft.

Do you have a formal education in music, or are you self-taught?

Definitely self-taught. I took electric bass lessons when I was in middle school and worked at a studio. I was in a band called the Freeze—it was a Beastie Boys-type thing

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where we rapped and played chilledout funk music. In 10th grade, we got second place at Fort Collins' Battle of the Bands. All the people in the band are on my record label now.

When did you first smoke?

I played basketball when I was a kid because I'm tall, and for a long time that was my dream. When it was time to go to junior high, my mom got really terrified 'cause she thought I was going to turn into a bad kid. So she sent me to private school-a Baptist academy. I got expelled, and then some friends and I snuck out with a Sprite can and a paper clip. We hung out on a playground with a little chunk of brown frown with lots of unwanted materials in it. I was like, "This tastes like shit!"

How does weed influence your music?

There are times when I'll be working on a track and I'll blaze and it'll sound so good, and other times when it'll have the opposite effect, where I'll be like, "This track is wack!" I don't know if it's the strain or just my state of mind at the time, but sometimes it can make me hate my musicand sometimes it makes me love it even more. My vision of the future was making music and supporting myself by cultivating sticky, tasty flowers. It allowed me to get much better at what I do because I didn't have a nine-to-five.

That's the way the world should be. How do you feel about legalization?

I'm completely proud of where I come from [Colorado] and that we were one of the first states to pass the

"[Growing] allowed me to get much better at what I do because I didn't have a nine-to-five."

regulation laws. For a while, it was out of control. I know that that happened in Southern California, and there were as many dispensaries as Starbucks. Billboards were everywhere with crazy highdef nuggets on [them]. That was a quick change.

What was your favorite strain that you got to play with?

Hawaiian Sativa-it was thick, pungent and really resinous. If you cured it right, it had the perfect crumble factor. It cured easily, and that's extremely important to me.

Did you do a flush? A long flush with no nutrients so that it would get that white-ash burn when you smoked it?

Yeah, we flushed the shit out of that Hawaiian. You could get that, like, really perfect burn where there's white ash in the joint-like a bomb just dissipates.

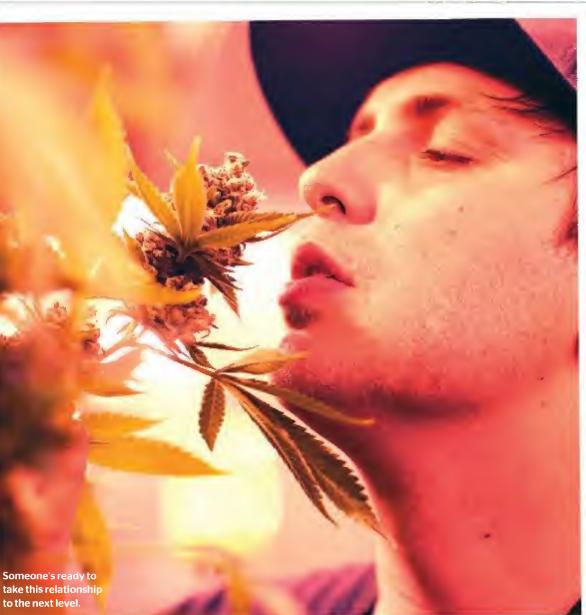
When I was growing, the



electricity bill was always the biggest worry, especially in [suburban] Fort Collins. I knew people who were stupid with that, and they got busted. It wasn't that long ago. Think about how much Colorado has changed. I can say that I've been there and seen it change ... and when I was in the game, the money was big, dude. 🖗

Blazing a Trail to Success

Pretty Lights came to fame through flames. Thanks to Fort Collins, CO's love of marijuana and his green thumb, the electronic artist was able to create a robust business model in an otherwise troubled music industry: free music, and weed for all.





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Coming Up for Foxygen

The 21st-century ambassadors of peace and magic claim to be walking away from the wild side. By Tyler Stewart

Sam France puts his beer down, takes a drag from his cigarette, darts his eyes my way and asks, "This isn't an interview about drugs, right?"

The 22-year-old France is the lead singer of Southern Cali's indie pop-rock sensation Foxygen, an out-of-left-field, are-they-serious-or-justfucking-with-us group that marries the energy of bygone psychedelia with the kind of lyrics that stump most folks and make hipsters feel special. France has been playing with guitarist Jonathan Radoalso 22, and the levelheaded "good cop" of the duo-since 2005, when the pair were high-school students. Foxygen released several EPs before handing the next one over to producer Richard Swift, who helped propel them to their current status.

Packing mean talent as

well as venues, Foxygen are riding a tidal wave of positive reviews for this year's We Are the 21st Century Ambassadors of Peace & Magic, and making waves of their own with drama both onstage and off. Earlier this year, the band landed in hot water after they canceled a string of tour dates and France lost his shit at SXSW and the Pitchfork Music Festival. Whether he's truly such a character or just channeling Andy Kaufman as much as Lou Reed and Mick Jagger remains to be seen.

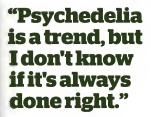
On this particular night, France and Rado's relative youth and the stress of riding a bullet train to fame are written all over their faces. It's a mild evening behind LA's Echoplex, and the calm before the storm of their performance in the coming hour is evident. France is

in the zone-but despite his tempestuous onstage persona, he's totally pleasant.

On the subject of their current album's success. France offers that he and Rado actually played it safe in comparison to the songs they grew up writing. "I don't think it's a full representation of us as a band-I don't really think anything is," he says. "We experimented the least on it sonically. The sonic vibes are just more directed toward the commercial ear."

But playing it straight seems to have paid off.





"I guess I expected people to *like* it—we were hoping it would get popular, because we wanted it to be an accessible album, that people could hear things that they love in it-but it's crazy."

"We have a Vevo now!" Rado adds with a laugh. "We would always joke about having a Foxygen Vevo ... but, uh, now we have one."

Although the sounds on We Are the 21st Century may be "safe" (at least in France's view),

the heavy psych influence is undeniable. Other bands in the indie sphere have been drawing inspiration from the genre as well, notable among them Tame Impala, Crystal Antlers and even Animal Collective.

"Psychedelia is a trend," Rado allows, "but I don't know if it's always done right."

Foxygen are now recording a new LP, Foxygen and Star Power, after an extended bout of touring. France and Rado both say they feel more at home in the studio.

"This is the longest we've gone without a record,"

> France says. "It's been strange, and it's changed the dynamic of the band, so we're excited to record again."

Oh, and about those drugs: "Legalize it!" the pair says. 💥

Singer Sam France is known for his antics onstage. In July, he pushed his luck a little too hard and broke a leg at a show in Minneapolis, immediately halting the band's summer tour and poetically fulfilling an old showbiz well-wish.

Read the extended interview at hightimes.com/ foxygen

Mending His Paw





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32 Entertainment



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Vanity Fare

The colorful world of homemade records.

"Private press," "vanity press" and "self-released" are all terms that might describe the LPs featured in this dynamic new volume exploring the far fringes of musical expression. There's a lot of ground to cover here, from seedy hotel lounge recordings and religious/cult vehicles to underground funk excursions, weird ego-rock releases and even children's albums.

One of the hazards in affording these "real-people" records (co-editor Major's term) such a close reading is that of assigning false value to works that are nothing more than failed bids for stardom and acclaim. The editors neatly avoid this problem simply because their own authentic connection to the heaviness and artistic commitment of these



Enjoy the Experience: Homemade Records 1958-1992 Edited bu Johan Kugelberg, Michael P. Daley & Paul Major (Sinecure)

result, the book never wanders into the easy, kitschy "so bad it's good" zone. Instead, the profiles of the artists-some complete unknowns, others well regarded in deeply underground circles-and the stories of the collectors featured in Enjoy the *Experience* are compelling and highly readable. Louche tales of straight-to-video metaphysical horror films and Ohio-based Christian-pirate-ventriloquist acts abound.

albums is never in doubt. As a

The array of images offered in the book is staggering; viewed en masse, they risk blurring into a forgettable whole. The careful reader, however, will revel in the striking, full-color reproductions of the original sleeves, which feature art ranging from the banal to the fantastical. Enriching this experience is an accompanying download card. which includes demented killer tracks from wasted genius Stephen David Heitkotter, spooky drugtrippers Ray Harlowe and Gyp Fox, and mesmerizing minimalist-disco wizard Médico Doktor Vibes, among others.

Enjoy the Experience is a must for anyone looking to visit the mysterious world of these unsung musicians, as well as a portal into the peculiar realities they've left for us to treasure. Robert Dyrenforth

MUSIC RECOMMENDATIONS



Framtid Defeat of Civilization (Crust War/La Vida Es Un Mus/Black Water)

Framtid released their debut 12-inch, a giant boot stomps down from the sky to crush our skulls once again. Framtid play modern, intense, noisy Japanese hardcore with an exoskeleton of Swedish influences. This terrifying masterpiece contains 10 brutal tracks

Eleven years after Japan's

On their debut album, Australia's Cuntz cycle through various noise-rock motifs with a brutish force, challenging your eardrums along with your sense of decency. The opening salvo of "Homeless" and "Casual Drinker" lands as hard as any Pissed Jeans one-two punch, but the album

Chicago doom metal overlords Trouble rumbled forth in 1984 with a cosmic connection to boulder-smashing power. The magic poured from the harmonized dual-Iommi The Distortion interplay of guitarists Rick Wartell and Bruce Frank-



Buffalo Killers Ohio Grass (Alive)



Maia Banks Down (Mother Mary Productions)

On the excellent EP Ohio Grass, Cincinnati's Buffalo Killers continue to swim in the swampy Midwestern groove that has made fans of the Black Crowes and fellow Ohioan Dan Auerbach. Heavy on the heavy and with plenty of hooks, the trio-led by brothers Andrew and Zachary Gabbard-manage to

lin, now the last original

members. New singer Kyle

Maia Banks is a musthear for those who appreciate strong, sultry female singers. On her premier album, Down, she follows in the footsteps of Patti Smith and PJ Harvey, two other notable possessors of powerhouse pipes. The layers of lady voices lull you into Banks's world of neo-folk;

of ear-piercing buzz-saw landscaping. The heavy bass and shrieking guitars will make you see white, while the drums are recorded big and loud, not like someone flicking a piece of paper in the background. I'm shocked that these guys delivered another LP as fantastic as their first. Dennis Berendts

truly hits its stride with the dizzying paranoia of "Lost" and "Meth." Singer Ben's desperate roar recalls the unhinged bellowing of Dugald McKenzie, deceased shouter from '80s hellions Venom P. Stinger. This is one of the finest albums of its type to come down the pike in ages. Erick Bradshaw

Thomas was once a guiding light to Phil Anselmo in the New Orleans thrasher outfit Exhorder and also headed up Alabama Thunderpussy. A similar bluesy stoner groove thrives here, but the album's more apocalyptic tracks (like "When the Sky Comes Down") remain the true word of Trouble. Ian Christe

veer in just six songs from pulsing, reverb-soaked reggae grunge ("Golden Eagle") to baroque garage-waltz ("Some Other Kind"). On "Grow Your Own," a dirge-y anthem to home gardening, Zachary yelps and wails like he's singing through a mouthful of edibles. Adam B. Gerard

it's as if she records herself on good days and bad to create a chorus of voices that reveals her true self. Fans of Alice in Chains' Layne Staley and his beautifully tortured singing will adore the track "Trust Me" in particular. This is an album that will soon be added to the soundtrack of your life. Rebekah Harris



Aloha (Homeless Records)

Trouble

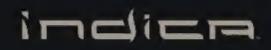
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34 Food



MUNCHIES Morning Mary Joe The canna-café superfood!

Blended butter coffee is on the rise, and my latest housemate—a mellow dude, fellow Portlander and scientific philosopher—has been singing its praises since he first arrived. I finally decided to research the benefits of switching out my favorite flavored creamers for butter and MCT oil. I was also curious as to how it would taste, and I was banking on there being no comparison.

And, in fact, there *is* no comparison. None. Not in flavor or in the end effect, both of which I loved, especially with the addition of marijuana, a little unsweetened cocoa and a dash of cinnamon.

CAFÉ PICK-ME-UP

2 tbsp. unsalted, grass-fed butter 1/2 gram ground organic, high-grade cannabis 2 tbsp. MCT oil (coconut oil is an okay substitute) 2 cups hot brewed coffee, made with fresh, organic fair-trade beans Optional: cinnamon, vanilla beans, unsweetened cocoa and/or coconut milk to taste

Before we start, note that this recipe is for a single serving, but it's always a good idea to make extra butter for future mornings or canna-coffee companions, so multiply accordingly.

Melt the butter in a double boiler over low heat and mix in the ground cannabis. Stir occasionally for 30 to 45 minutes, never letting the weed get High Times December 2013

Before trying this drink, I'd never heard of MCT oil, so in case you're in the same boat, here are some of my favorite tidbits: MCT stands for "medium-chain triglycerides" (fatty acids). Our bodies absorb them effortlessly, and like cannabinoids, they're utilized in the treatment of malnutrition and malabsorption. Here's the kicker: These awesome little chains also aid in the absorption of fatsoluble vitamins. My theory is that they enhance the absorption of our beloved fat-soluble cannabinoids as well.

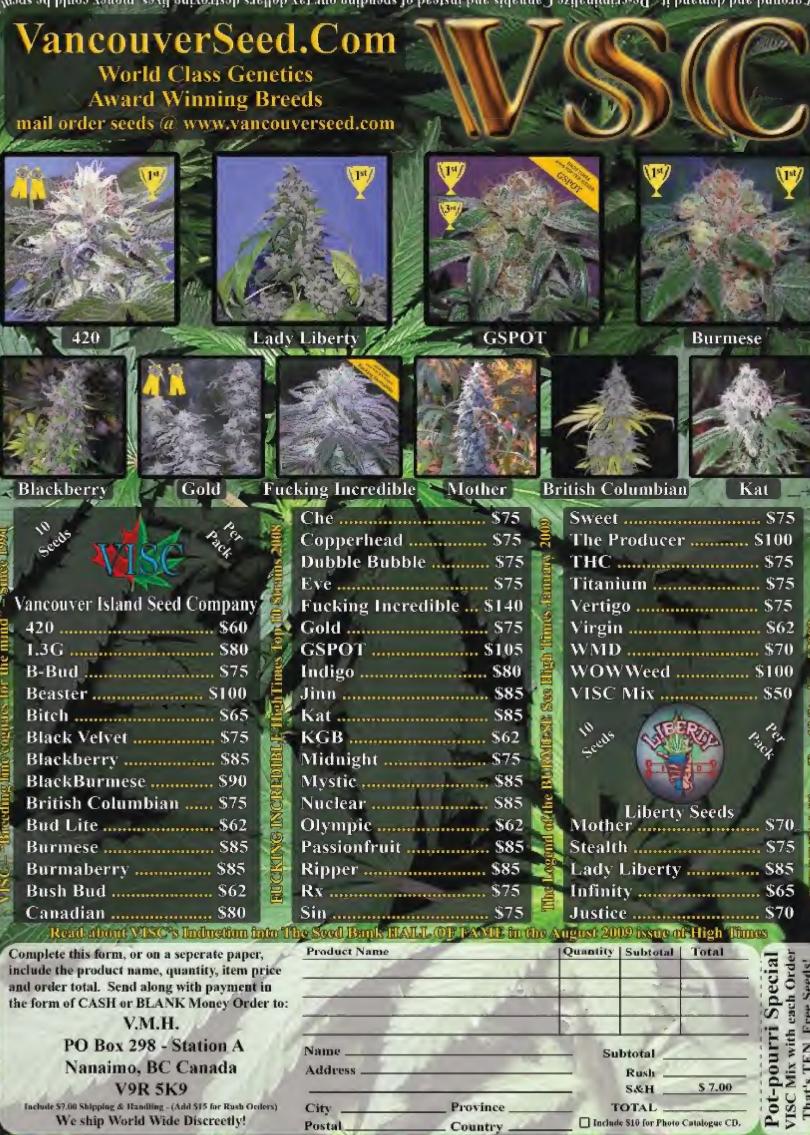
Grass-fed butter also helps our systems soak up vitamins and cannabinoids, and it's packed with its own vitamins and healthy cholesterol.

Noteworthy: I finished my first cup over an hour ago the frothy, creamy texture was too much to resist, and besides, there was canna-butter in there—and I feel great, creatively energized and ready to tackle the rest of the day. I have no jitters, and though I'm a bit hungry, my desire for munchies is considerably less than with other edibles. *Mary Ought Six*

toasty-smelling. Strain through cheesecloth and discard the vegetable matter.

Next, brew two cups of your favorite fresh-ground coffee. Warm up the inside of your blender by running it under hot water. Put the blender in place and add the MCT oil and any of the optional flavor ingredients. Add the cannabutter. (If you've made extra, put the rest in the fridge for future use.) Pour some of the hot brewed coffee into the top part of the double boiler and swish around to get every last bit of buttery goodness; then pour that mixture and the rest of the coffee into the blender and blend on low until frothy and emulsified (from 15 to 30 seconds). Stones 1.

we ground and demand it. De-criminatize Cannabis and instead of spending our tax dollars destroying lives, money could be spend



Acquisition of live cannabis seeds is illegal in the United States. Cannabis growers and consumers are one of the largest uw

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36 Cannabis Clinic

High Times December 2013



Smoke a fattie, don't be one New research confirms that marijuana users weigh less and live better.

Happily, many of the most damaging (and wholly false) stereotypes about pot and pot smokers seem to be disappearing in this exciting new era of barely legal marijuana. But not so the good old-fashioned munchies joke. Give a person who doesn't like weed a chance to talk about the subject and they'll make a lame Cheetos reference every time.

All of which makes the results of two new studies, published in the American Journal of Medicine and Nutrition & Diabetes, rather hard to digest for those who still haven't accepted that cannabis is the wonder drug of our day. In the first, investigators at Harvard Medical School found that regular marijuana use led to a significantly decreased risk of diabetes-a finding that built upon previous research in the American Journal of *Epidemiology*, which showed that rates of obesity dropped by roughly one-third for those who smoked pot three times a week. In the second study, researchers found that the cannabinoid tetrahydrocannabivarin (THCV) can help those already suffering from adult-onset diabetes to control their symptoms better.

But how can all this be

possible if obesity is a leading cause of diabetes, Cheetos are a leading cause of obesity, and cannabis is a leading cause of Cheetos?

"While marijuana remains legendary for causing delirious eating binges known as 'the munchies,' the plant's cannabinoids-especially THC-also appear to alter our metabolism of sugars and fats in a beneficial way," explains Clint Werner, a medical cannabis researcher and author of Marijuana: Gateway to Health. "We already know that the endocannabinoid system throughout the body acts as a regulator of our biological systems. And this new evidence shows that marijuana's cannabinoids might actually enhance the body's ability to burn excess calories as well, thus reducing the amount stored away as fat.

"Since obesity is a growing epidemic in our society with serious health-care ramifications, and since alcohol adds many empty calories to the diet, we should be encouraging people to substitute marijuana for booze whenever possible," Werner concludes.

Which means the next time you want to toast "to your health," better to get toasted than drunk! *David Bienenstock*

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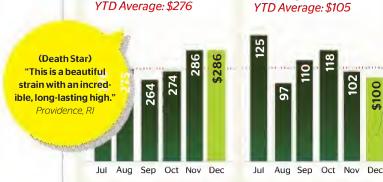


While the Kind, Mids and Schwag indices held steady in December, the US Price Index finished the month \$9 above its previous average. Both the US Price and Mids indices closed well above their respective year-to-date averages (US Price +\$15, Mids +\$10). Once again, Kush was the most submitted strain of the month. That makes 11 first place finishes and one first place tie for Kush in 2013.

US Price Index YTD Average: \$329 Kind Index YTD Average: \$393



YTD Average: \$276



STATE	CITY	STRAIN	PRICE
Alabama	Montgomery	Grape Ape	\$380
Arizona	Phoenix	Purple Kush	350
Arkansas	El Dorado	Skywalker OG	450
California	Los Angeles	Kryptonite	260
	San Francisco	SFV OG	325
Colorado	Boulder Denver	Golden Goat LA Confidential	320 350
Deleurene			
Delaware	Newark	Grape Ape NYC Diesel	320 350
Florida	Orlando	Blue Dream	450
		AK-47	400
Hawaii	Maui	Super Lemon Haze	400
Indiana	Indianapolis	Bubblegum	420
Maryland	Baltimore	Sour Diesel	325
		Grapefruit	375
Massachusetts	Boston	Diesel	400
	Brockton	Purple Kush	375
Michigan	Detroit	Purple Haze	360
	Lansing	Sweet Tooth	400
Minnesota	Winona	Jack Herer	375
Mississippi	St. Louis	Lemon Haze	360
New Jersey	Hoboken	Super Silver Haze	400
New York	New York	Strawberry Cough	400
	Queens	Sour Diesel	420
North Carolina	Charlotte	Blueberry	400
Ohio	Columbus	Girl Scout Cookies	350
		Death Star	350
Oklahoma	Oklahoma City	Sour Diesel	450
Oregon	Eugene	Sweet Tooth	230
	Portland	Cheese	260
Pennsylvania	Philadelphia	White Widow G13	420 380
Rhode Island	Providence	Chem Dog Death Star	350 400
Tennessee	Nashville	Purple Haze	420
Vermont	Burlington	NYC Diesel	350
Virginia	Harrisonburg	Blackberry Kush	350
	Richmond	Blue Dream	400
Washington	Seattle	Sour Diesel	260
West Virginia	Huntington	Northern Lights	300
INTERNATIONAL			
Australia	Brisbane	Pineapple Kush	AU\$320
Canada	Edmonton	OG Kush	C\$220
	Toronto	Jack Herer	200

HIGH TIMES wants to know what you're smoking. Submit your strain information including location and price by the ounce to thmq@hightimes.com - or tweet us (#THMQ).

(Pineapple Kush) "We've got great pot in the Land Down Under..." Brisbane, AU



1

Hot Products What's new for cannabis cultivators and connoisseurs.

D. MADI

1 Vape Flask

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grencoscience.com Two of our favorite brands have collaborated on a new product for the discreet puffer and boozer: The new limited-edition Huf × G-Pen Huf G Flask is the perfect stocking stuffer for the fashion-conscious stoner in your life. The stainless steel 3-ounce flask and custom Huf Micro G-Pen come with everything you need to catch a buzz almost anywhere, anytime.

2 Head Jar

Starting at \$11 jyarz.com

Storing your buds or hash in plastic baggies or containers just won't cut it in this era of cannabis connoisseurship. That's why we love the **Jyarz** glass-lined travel containers, an innovative storage system that's compact and reusable. The glass insert is protected by a plastic sleeve and cap to keep whatever's stored inside sealed, secure and safe from drying out or breakage.

WOD'NYO

3 Future Smoke

\$69.99 smocan com

2

smocan.com Portable smoking systems have come a long way since the dugout. The new **SmoCan** unit is a selfcontained wonder when it comes to stealthy smoking on the go. This waterproof unit boasts a built-in grinder, screen, poker and storage space; simply add a mini Bic lighter and a one-hitter and you're ready to roll. Plus, the SmoCan comes in your choice of five available colors.

710 Is the New 420

High Times December 2013

Prices vary

4

formula710.com Everyone knows the glass-, airand spill-cleaning power of Formula 420 products, but the company's latest release is aimed at the particular difficulties posed by the exploding popularity of hash oils. Remove sticky residues quickly and easily with eco-friendly **Formula 710** wipes and rinses. Even the toughest-to-clean rigs will soon be spotless and ready for hitting more dabs.



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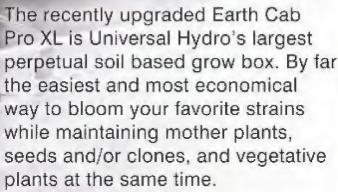
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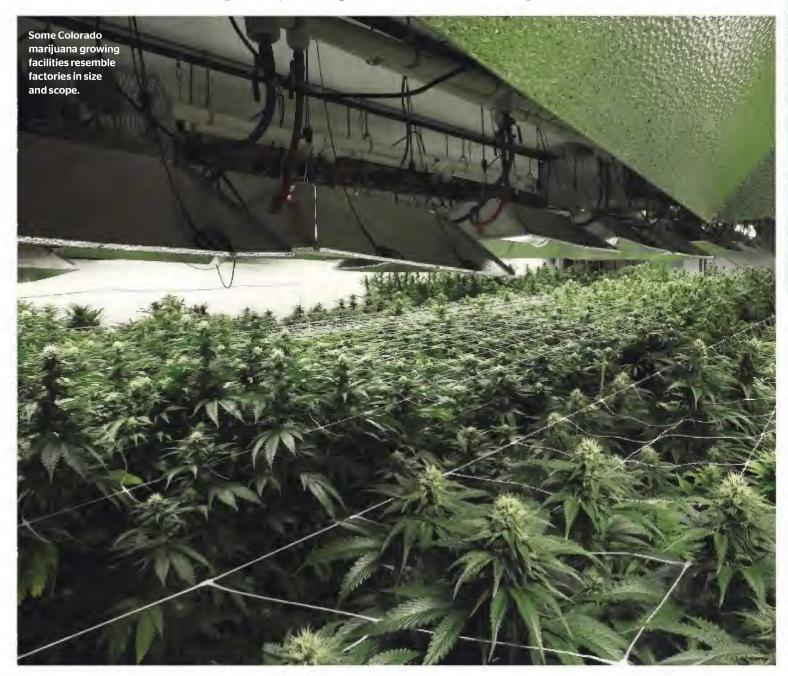
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HIGHTIMES 2013 GLOBAL HARVEST REPORT

Compiled by the High Times Cultivation Department.



DENVER

Colorado's high altitude and dry air have always made it one of the premier locations to grow pot in the US. Now, with the passage of recreational-use legislation in 2012 that allows state residents 21 years and older to grow six mature plants on their property, Colorado has solidified its place as the second-highest producer of cannabis in the country, behind California.

The truly amazing aspect of Colorado, however, is that locally grown marijuana is rarely subpar—almost everything grown out here is of top quality, even brand-new, never-before-seen hybrids. This past April, at the first-ever High Times U.S. Cannabis Cup in Denver, strains such as Triberry, R-18 and a new Cinderella 99 x the Great White all made the Top 10 in the hybrids category, beating out even the OGs, Sours and Chems. Plus a Skunkberry line tested at 24.5% THC—Skunkberry! Clearly, Denver growers are dialed in, and if Colorado had a population even half the size of Cali's, there'd be some serious competition as to which state produces more primo ganja.

As for 2013, the bulk of the marijuana harvested here still comes from indoor grows, as the climate and mountainous terrain make long growing seasons and high-caliber outdoor production fairly problematic. Still, the use of greenhouses and (unfortunately) light-deprivation cold frames is on the rise around the state. And a great deal of Colorado's buds get packed tight and shipped elsewhere, as the growers here easily produce more than is needed to meet demand for the state's eight million residents.

But perhaps the most interesting aspect of Colorado is how many growers now treat flowers as merely "pre-run" an annoying but necessary precursor to the cannabis concentrates so highly coveted on the wildly popular dab scene, for which Denver just may be the nation's primary producer. So here's to the Greatest Pot State of them all—the first to legalize, the tops in potency, and the leader of Dab Nation. *Nico Escondido*



NEW YORK CITY

The East Coast powerhouse of all things cannabis has been inundated with Americanmade marijuana for the better part of 2013. And while the supply is commonly referred to as "work-grade" weed, the quality has risen steadily to the point that most casual city smokers can barely tell the difference between indoor and outdoor products.

With that being said, indoor cannabis still commands the best prices in New York City, and connoisseurs have no problem paying upwards of \$600 an ounce for the primo stuff. (Thank you, Wall Street glad you're still good for something.) Interestingly, the mantra seems to be "The more local the herb, the higher the price" which correlates directly with quality, since the stuff shipped east by our good buds in Cali and Colorado is less than the finest that those regions are producing, (And who can blame them, really, for keeping the best stuff close at hand?)

Surprisingly, though, all of the new flavors that are cropping up and winning Cups out west have started to make the cross-country trek to NYC—formerly an unusual phenomenon in these parts. Strains like the new Girl Scout Cookies

and the upstart Cherry Pie have been steadily available throughout the Northeast for the better part of the year. Of course, our Old Faithful, a.k.a. real East Coast Sour Diesel, still reigns supreme as the taste of choice for New York stoner palates, with anything from the Chem line serving as an acceptable substitute. Even so, thank goodness for Cali's willingness to provide such flavors as the Diesel, Guava Chem and, as always, the West Coast king, OG Kush-otherwise, this city might go into withdrawal. Seriously, we only smoke the strongest lines out here, so if you're planning on sending any Jack phenos or plastic-smelling, hermied light-deps-save your time and blast 'em into dabs.

Needless to say, the New York City and New England indoor scenes have reached epic levels, thanks to these excellent genetics finding their way to the Big Apple. And with New Jersey, Connecticut and Washington, DC all opening medical marijuana dispensaries in 2013—to say nothing of Vermont, New Hampshire, Maine and Massachusetts, which have had medical marijuana laws in place for some time now—New York State shouldn't be lingering too far behind. *Graham Fisher*

LOS ANGELES

The battle for ganja supremacy is on in California, with north versus south as Los Angeles anchors the southern half and San Francisco as the stronghold in the north. And with a majority of medical marijuana clinics choosing to carry only indoor buds, the playing field has started to level; even growers in the northernmost part of the state are maintaining at least one small indoor room for commercial use.

High Times

Even so, LA has proved time and again that it is still the OG Kush capital of the world. In fact, at this year's Medical Cannabis Cup in Los Angeles, the top five finishers in the *indica* category were all Kush varieties. The newest OG rage, known simply as the 600, is a pheno of the Skywalker OG and was developed near Hollywood earlier last year. (Incidentally, the 600 took home first-place honors in the *Indica* Cup this past April in Denver.)

Among LA sativas, there's a new player in town known simply as the Tanj or Tangie-short, of course, for Tangerine. The Tanj (by Reserva Privada) took home first place in the Sativa Cup in LA last February (and was allegedly created, ironically enough, north of San Francisco). Other popular sativas include the Lemon-G and, surprisingly, the old-school Durban Poison, which is a parent of the indica-dominant Girl Scout Cookies. The GSC is a hotly debated strain, with multiple growers claiming to have bred it. But the GSC's other parent is said to be the fabled Cherry Pie, another extremely popular and tasty strain that is supposedly a hybrid of the Granddaddy Purp and OG Kush lines.

The big news coming out of California right now, however, is the Marijuana Control, Legalization and Revenue Act of 2014 (formally the Cannabis & Hemp Freedom Act), which aims to make California the third state in as many years to fully legalize marijuana for recreational use. While Cali has tried this before to no avail, we're confident that next year will be different. *Tyde Turner*



SAN FRANCISCO

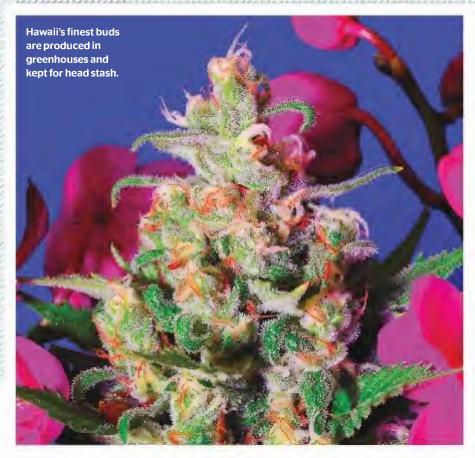
Generally, when one thinks of the Nor-Cal growing scene, one tends to picture outdoor cultivation. However, while the Emerald Triangle is still going strong, these days even the most diehard outdoor farmer has at least one indoor growroom—if for nothing else than head stash (though many use their indoor space for nurseries and commercial-sized grows as well). This trend speaks volumes about the state of things in NorCal, which has long prided itself as a hub for seasoned connoisseurs of fine cannabis. It takes a lot these days for an outdoor operation to compete with the quality of indoor gardens, and while some excellent growers up north definitely pull it off, many cannabis consumers know that with the advanced equipment, nutrients and clone stock available today, the quality of indoor is simply better.

However, to throw a wrench into this way of thinking, consider these facts: At the Bay Area's High Times Medical Cannabis Cup this past June, out of nearly 80 flower entries across all three categories (*indicas, sativas* and hybrids), only two were grown outdoors. And of all the entries submitted, only one came in at



over 20% THC in testing done by Steep Hill Lab—that's right, just *one*. So what does that say about NorCal and the progress of grow ops there? Well, either the Bay Area and all points north have taken a half step backwards, or else the gene pool has become grossly stagnant.

Either way, we're still eager to see what this year's outdoor harvest produces. Preliminary reports show that most farms are looking at yields well above average, as the summer of '13 has been good. And if last fall's harvest is any indication, most of the US is going to be flooded with cheap outdoor nuggets starting in early December and lasting through the better half of 2014. The Blue Dream is still a popular line up north, not to mention every purple strain under the sun, including (but not limited to) Granddaddy Purple, Purple Urkel, Sour Grape and Grape Ape. Other notables include the legendary Strawberry Cough, Jack Herer, and Jack crosses such as the XJ-13 and Jack Frost—which, incidentally, would do well to stay out west, since these *sativas* aren't quite as popular on the East Coast. *Nico Escondido*



HAWAII

It's true that Hawaii produces some high-quality marijuana. That's due mostly to the temperate climate and abundant sun. But it's also true that Hawaii can be a difficult place to grow. There are many different climate zones here, from desert-like conditions to the rainiest city in the nation, Hilo. The windward side of each island is very wet, and the leeward side is very dry, so each side presents its own challenges.

One of the biggest factors helping to improve the quality of pot grown here is the increased and reliable access to overseas seeds. Many Hawaiian growers have been ordering seeds of newly developed powerful strains from abroad. Then, as these new strains adapt to the Hawaiian environment over several generations, the variety gets better and better, resulting in some A-plus product. Consequently, strains that were once common here, such as the fabled Maui Wowie, are slowly disappearing, while the Kush varieties are taking over, with a slew of new names rarely heard on the local grow scene before, such as Grimace and Godfather OG. The shift from the classic Hawaiian sativas to these Kush varieties is a result of growers adapting to consumer demand, though some newer sativas like

Super Lemon Haze are beginning to crop up as well.

New regulations regarding medical marijuana in Hawaii are scheduled to go into effect in January 2015. The changes (which are hugely positive) include increasing the amount of dried marijuana that a medical patient can possess from three to four ounces. The total number of plants allowed under the law is still seven, but all of them can now be mature plants (whereas before only three of the seven could be mature). And oversight of the program will be transferred from the Department of Safety's Law Enforcement Division to the Department of Health. Legalization advocates have been in favor of these changes because they're a small step in the right direction when it comes to addressing the larger issues of medical marijuana legislation.

The best news we can report from Hawaii is that on the Big Island, where a lowest law-enforcement priority (LLEP) ballot initiative has been in effect for several years, people are able to grow up to 24 plants on their property without being arrested (as long as they're not breaking any other laws doing so). The cops might still haul the plants away, but no one is being sent to prison. And that is what we call "Aloha!" *South Bay Ray*

MEXICO

Mexico is emerging from a very difficult period of bloodshed and carnage, but this year we experienced a political change of guard: back to the Institutional Revolutionary Party (PRI), who are actually the *old* guard and were in charge when we were supplying a lot of good *colitas* to the American market.

High Times

Mexico has easy-rolling drug laws—no penalty for the possession of 10 grams of marijuana or small amounts of *any* drug. But for the last six years, former President Felipe Calderón's militarized War on Drugs has failed spectacularly in his attempt to weaken the cartels. The result was over 80,000 *narco muertos* in our country over that span—an unbelievable and unacceptable figure.

This six-year-long atrocity has caused severe lapses in the development and use of today's horticultural technologies in Mexico. The growers here are generally rural, indigenous farmers with many fewer resources than they should have. The seed stock is always the same, with no influx of genetically altered seeds (feminized or even hybridized). Mexicans know nothing of strain names like Jack Herer or Northern Lights.



No dabs or medibles, either—and "AK-47" means something entirely different to stoners in Mexico.

Each state does have its native varieties. Here in Oaxaca, the herb is called *criollo*, dark, sticky buds with stems and the occasional seed—but it only costs \$100 US per pound and gets the job done nicely. This is the primary reason that Mexican growers can't understand the need to import seeds at \$10 each.

Our new president, Enrique Peña Nieto, began his six-year term in December 2012. He is young, handsome and married to a beautiful soap-opera star—the perfect political front man to reflect the changing times. Indeed, former Mexican President Vicente Fox, in a recent *High Times* interview, proposed new ideas about state-drafted regulations for legalized pot. He applauded Colorado and Washington State and called for an end to prohibition everywhere. He also mentioned our state, where the Association for Medical Marijuana of Oaxaca (AMMO) is seeking to persuade Governor Gabino Cué to invest in state-run, organic marijuana laboratories. *Jack Chastaine*



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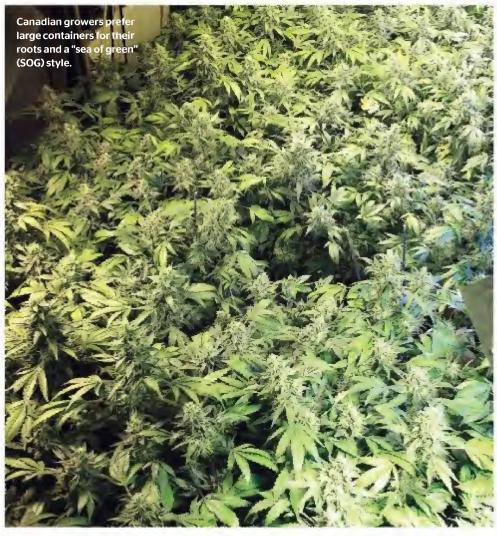




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The philosophy up here is to grow with 1,000watt lights in perpetual-flower rooms, easing the burden come harvest time.



MONTREAL

Right now Canada is undergoing significant changes to its cannabis laws. In some provinces, such as Quebec, recreational use has been somewhat tolerated for the last few years. However, the unhappy changes are occurring in the country's medical program. What was once a beacon on the global med-pot scene is now undergoing some comprehensive, fundamental changes that may leave the program in such disarray that patients will inevitably suffer.

Originally, if you had a medical-use license, you were allowed to grow in your own home or any other type of property, such as a commercial warehouse, provided that the electrical and other systems were safe and up to code. The government now wants to change all that. Instead of a largely decentralized system of growers, it plans to rely on huge, government-sanctioned grow ops that would supply the bulk of patients. The problem here is that the previous government grow op, contracted to Prairie Plant Systems, produced such terrible cannabis that patients couldn't use it.

This new system would be a real shame, as the gardens in Canada are among the most professional and efficient in the world. The philosophy up here is to grow with 1,000-watt lights in perpetual-flower rooms, easing the burden come harvest time. Growers here also prefer to use massive round pots, as they tend to grow "sea of green" (SOG) style, eliminating all those pesky lower branches. One of the nicest gardens I've seen was able to produce 20 pounds a week!

The main strain being grown here is a Quebec specialty known as the Jean Guy, a remarkable hybrid situated almost exactly in the middle of the spectrum between a *sativa* and an *indica*. The Purple Kush remains another popular variety: This dense and compact strain, which originated in Vancouver, has a potent high and an incredible, pungent aroma. *Harry Resin*

Because Belgians are allowed one plant per person, they grow them big.

High Times



ANTWERP, BELGIUM

This tiny country sandwiched between France and the Netherlands has slowly made progress in the last few years thanks to two organizations, Encod and Trekt Uw Plant (which means "Pick Your Plant" in Flemish). These two groups have been pushing the limits of what is possible under Belgian law.

At the moment, you are legally allowed to have one plant or four grams of cannabis. By sticking to the one-plant rule, Trekt Uw Plant has increased the personal allowance to around 20 grams in essence one full plant per person. The organization works as a social club, similar to the model being used in Spain. After paying a membership fee, you are admitted to the club. The plant costs €140, which works out to about \$9 per gram. The most popular strains at the moment are White Russian (from Serious Seeds) and Amnesia Haze.

A few other cities in Belgium have adopted this model and started social clubs, and there are also pockets of home growers using tents or working with auto-flowering plants in outdoor gardens. Some of the strains being grown are the White x Massachusetts Super Skunk, Romulan and Jack-onesia (from Karma Genetics). The indoor growers usually use a single 600-watt lamp for anywhere from two to four plants. Also, the preference is for fewer plants in bigger pots, thereby improving the airflow throughout the grow. Outside of the regulated social clubs, the average price has been high due to the scarcity of good bud. The price per gram fluctuates between €12 and €14, or about \$14 to \$16. Harry Resin

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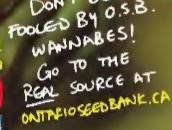
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SPAIN

Spain is a wonderful place to be a pothead! The climate is amazing, the food and wine are incredible, and the police can't be bothered to harass smokers and growers. Spain's favorable privacy laws require a complaint to the cops before they are prompted to investigate a crime—and nobody here complains to the police about cannabis use. The people have a general mistrust for authority, and therefore live a life free from unreasonable interference.

The basis for the marijuana scene in Spain is the private cannabis social club, a members-only outfit that grows its own pot. These places can range from cozy clubhouses to elaborate facilities.



The clubs tend to reflect regional influences: In the northern Basque region, they are informal meeting places where the famous cured hams are shared with bread and wine. In Madrid and Barcelona, they can be quite fancy, with multiple levels of clean, well-appointed rooms, including framed artworks.

I recently had a chance to visit a couple of private clubs in Barcelona. The first, called Sibaritas, serves an older connoisseur clientele with quality buds and hash in a comfortable environment. Down the street, a club called Roots Poblenou draws a younger crowd with some music and pool tables in addition to top-quality cannabis.

My favorite destination in Barcelona, however, was the newly created Hash, Marijuana and Hemp Museum, a sister to the original one in Amsterdam. Here, Sensi Seeds proprietor Ben Dronkers has amassed a treasure trove of cannabisrelated materials, including some of the oldest marijuana artifacts I've ever seen. Ancient pipes, pharmaceutical pot bottles and even a couple of actual Picasso paintings fill out the museum, which I would call a must-see spot for anyone interested in marijuana history. *Danny Danko*



LEBANON

Cannabis farming in the Baalbeck region of Lebanon is an ancient practice that dates back to the beginnings of recorded history. These days, the farmers don't usually process the plants themselves, instead choosing to sell their crop to drug lords for a relatively small return. They do not earn much more per hectare than they would with other crops, but they resort to cannabis because they don't have to buy seeds, invest in irrigation or pay for fertilizers, since the plant is indigenous to the region and grows without care or watering. The drug lords then process the leaves into paste or oil. These gangs are usually affiliated with contraband networks, as well as the more extravagant gun battles and kidnappings associated with the drug trade in the region.

At the lower end of the trade, you have farmers cultivating and selling the crop to earn a subsistence living. However, these farmers are fiercely protective of their fields and are often willing to use force to protect them from state intervention. In 2012, armed farmers fought off bulldozers sent to destroy the illegal plantations. A ceasefire was called only after government ministers promised financial compensation to the farmers—funds that never arrived. As a result of the Lebanese government's inability to compensate them, there is now a temporary block on the destruction of cannabis farms.

Once these farmers have harvested and sold their crop, it is processed by locals, who then resell it to traders or on the local market. This part of the trade is controlled by a number of tribal families. The drug lords, who have contact with international networks and export the drug, are also generally members of tribal families; however, their power is derived from an alliance with the forces dominating the political scene. According to sources close to the trade, the smuggling routes these days are controlled by Hezbollah, a militant Shiite political party supported by Iran. With the tightening of US sanctions on Iran, the money flowing to Hezbollah has been reduced, and as a result drug smuggling has become a much-needed source of funds.

High Times

Some of the recent political developments in Lebanon are linked to the drug trade. According to local sources, the clashes between Hezbollah and Lebanese security forces headed by Ashraf Rifi were triggered by losses of revenue caused by government clampdowns. Most traditional smuggling routes go through the Arsal Jur, which is a mountainous border area that slopes down into Syrian territory. Arsal Sunni families work together with Shiite tribal families along these smuggling routes, and according to sources, many of the recent flare-ups have been caused by deals that have gone bad due to the worsening situation in Syria.

On the ground, things are also getting worse for the casual smoker: Prices have increased on average by 50 percent a year over the last three years, meaning that 100 grams these days will set you back around \$500, with prices sure to continue rising. "They have arrested 160 smokers and dealers in the last few weeks," said one resident of Beirut. "We can't get smoke anywhere now—it is becoming really hard to find, very expensive to buy, and dangerous for us to locate." Oz Katerji



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AMSTERDAM

Amsterdam remains the number-one marijuana destination in the world, as the legislation that threatened to keep tourists out of the coffeeshops has failed. I repeat: Tourists are still welcome to purchase and consume cannabis and hashish in Amsterdam's coffeeshops, and that's not going to change anytime soon. The unique and storied culture of ordering your pot from a menu and then smoking it at your table with a nice cup of tea, coffee or juice lives on, and it's every marijuana connoisseur's duty to experience it at least once.

High Times

Coffeeshops of note always include the Green House, Barney's, De Dampkring, the Green Place and Grey Area, but some new shops have been stepping up their game as well. Prix D'Ami is a multi-story megashop with pool tables, lounging areas, and some great cannabis and hash on the menu, including many strains from Big Buddha Seeds. Voyagers is just steps from Central Station and caters to the true pot aficionado. Some shops, such as the Bushdocter and Resin, are even offering dabs of hash oil (albeit quite expensively).

This year's 26th Annual Cannabis Cup in Amsterdam will mark the start of the event's second quarter-century of existence, and plans are in the making for an epic celebration. Hope to see you there this November! *Danny Danko*

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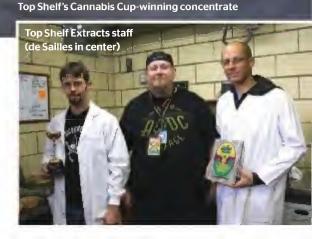
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Top Shelf's translucent THC taffy

Oompa Loompa Goo-ba-dee Goo ... we've got a killer story for you! Senior editor Bobby Black cashes in his golden ticket for an exclusive-behindthe-scenes-tour of Denver's biggest dab labs. And while they may not have honeyoil waterfalls or shrubbery made of shatter, they're most impressive nonetheless. Come and see ... and you'll be ... in a world of herbal concentration!

Story & Photos by Bobby Black

t's no secret that dabbing is all the rage these days—but with news reports of butane-related explosions on the rise, it's no wonder why we here at *High Times* frequently and fervently stress



that "blasting" at home is far too dangerous to be attempted by amateurs, and that making BHO should be left to professional extract artists with the knowledge and equipment to do it safely and properly. So, in order to illustrate the difference, we visited two of Colorado's top cannabis-extraction facilities—Pink House Labs and Top Shelf Extracts—to show you how the pros make BHO.

One such pro is Daniel de Sailles, the owner of Top Shelf. Originally from California's San Fernando Valley, de Sailles has been working in the cannabis industry his entire adult life.

"As soon as medical marijuana was legal in Cali, I started working in dispensaries and ended up managing a couple," he tells me. In 2007, he started getting into concentrates. "I got to meet a lot of the real pros, and they taught me some tricks—but I was living in an apartment at the time, so I wasn't able to do all the work. Then, in early 2008, I was offered a job to start a concentrate division for Broadway Wellness and moved out to Denver."

There's no earthly way of knowing Which extraction we are smoking. There's no knowing what we're toking Or which flowers they were blowing. Is it shatter? Are you joking? Is the hand-torch flame a-glowing? Not a speck of mold is showing On the flowers they are growing. Are the domeless nails a-glowing? Is the butane gas a-flowing? Yes! The danger must be growing, For the dabbers keep on toking. And they're certainly not showing ... Any signs that they are choking!

few of the vacuum ovens Pink House uses for purging.

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That proved a prescient decision for both parties: In April 2011, de Sailles snared Broadway Wellness second place for Best Concentrate at our 2011 Denver Medical Cannabis Cup. By the time the 2012 Denver Cup rolled around, he had formed his own concentrate company (Top Shelf) and wound up taking home first place in the category. Top Shelf currently runs extractions for some 25 different clients, who hire the company on a freelance basis-meaning that the type of concentrate Top Shelf produces depends on the particular client. Located in the back corner of an industrial kitchen that it shares with medible

company Incredibles, Top Shelf employs eight people and processes around three to four pounds of finished product each week—just under a pound a day.

"A pound a day? I can run a pound in about an hour," boasts Derek Cumings, head of Pink House Labs-quite possibly the largest, most sophisticated solventbased extraction facility in the country. Like Top Shelf, Pink House also took home a few trophies at the 2013 Denver Cup: they won first place for Best Solventless Hash and tied for first in the Patient's Choice Cup. Unlike Top Shelf, however, Pink House operates on a significantly larger scale: Taking in around \$4 million annually, they have 80 employees staffing their seven retail locations (servicing around 100 patients per day) and five production facilities, of which this butane extraction lab managed by Cumings is the most recent. A lifelong Coloradoan, Cumings got involved in the cannabis industry at the age of 25, while treating the severe pain he suffered as the result of degenerative disc disease and sciatica.

"The doctors gave me 20 to 25 pills a day—morphine, Dilaudid, Valium, Norco,

Vicodin, anti-nausea medicine ... I was on the couch not wanting to do anything, just a drooling wreck. I didn't see that as a permanent solution," Cumings recalls.

His life was changed, however, when he began using a cannabis tincture given to him by a friend. He experienced such excellent results that he began making edibles and concentrates for himself—and, eventually, for others as well.

"I thought it would be selfish to have that knowledge and not do anything with it," Cumings says. "I felt I had a responsibility to give back."

He began selling edibles to the handful of dispensaries that had opened in Colorado, eventually opening one of his own—In Harmony Wellness—with partner Tina Valente in early 2009. Unfortunately, when Fort Collins enacted a dispensary ban, he was forced to return to working for other dispensaries, many of which didn't share his sense of ethics. "I saw a lot of people that believed it could make them money, but not a lot of people that really understood the plant," he says.

After two years of "several different foul situations," Cumings asked one of Pink

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House's owners, Elliott Klug, if he had any positions open, and Klug put him in charge of the company's new Marijuana Infused Product Facility. Cumings took over the MIPF division in August 2012; four months later, Pink House opened this \$100,000 state-of-the-art new lab.

"This is the first time I've seen a facility that is completely dedicated to perfecting the craft of cannabis concentrates," Cumings says. "We're trying to transform extraction from an art into more of a reputable science."

Whether viewed as an art or a science, the first rule of extraction is that the quality of any concentrate depends mostly on the raw material provided. Since running whole buds is far more costly, the majority of BHO is typically made from trim.

"Usually, if we get buds, there's something wrong with them," de Sailles acknowledges. "They were burned with heat, seeded, hermied out or got picked early. Premature buds make pretty oil, but they have a kind of weird celery/vegetable flavor."

The plant material used affects not only the quality of the resulting concentrate, but the quantity as well. Highquality trim generates around 10 percent of the starting weight, or about 10 to 15 grams of BHO per tube. With bud, it's close to double that amount.

Other than a few significant differences, the methodology utilized by both labs is basically the same. Over at Pink House, my walk-through begins: First, dried and cured flowers are brought in from one of the company's facilities and stored in the lab's concrete-reinforced bank vault, where the bud is kept in the dark until it's time to start a run. Then a lab worksheet is filled out designating what strain or blend will be used (let's say Snozzberry Cough). Next, the flowers are ground up (a medium to fine grind) and packed tightly into clean Pyrex glass tubes, the ends of which are sealed with coffee filters and zip ties or pipe clamps. The tubes are then frozen in order to facilitate a cleaner run. Ideally, the material should be from -30°F to -50°F.

"Basically, the colder your product processes—whether you're doing a butane

extraction or an isopropyl wash—the less nondesirable plant material you're going to strip into that extraction," Cumings explains. "If you do it at a warmer temperature, you're going to end up pulling more of the green chlorophyll."



"We don't freeze until right before we run it, because we have to get it really dry," de Sailles offers. "If you don't get it down below around 5 percent moisture, there's a real chance it'll auto-budder."

Like most extraction facilities, Top Shelf uses dry ice to get its tubes down to the desired temperature. Pink House, however, has upped the ante by purchasing a cryogenic freezer.

"Dry ice works great, but it's not as quick as this," Cumings says. "I can pull something to negative-50°F in about 45 minutes."

Once the proper temperature is reached, the tubes are taken outside for blasting. After a good deal of experimentation, Cumings prefers using a closed system, but in the open position—citing technological problems with removing any foreign material that gets into the closed-loop extractors currently available. "There are companies out there that have almost got it. We've been working on plans for our own extraction system that will hopefully address some of these concerns."

Top Shelf, on the other hand, blasts using a standard open-tube system and a 120-pound tank of industrial *n*-butane. "It's the cleanest solvent we can buy," de Sailles assures me. "It's also very selective—it pulls out the good stuff and leaves behind the bad stuff. When it comes out of the tank and into the tube, we keep it pressurized so you get better flow-through."

The liquid butane runs through the tube, pulling out all of the plants' essential oils, then drips through the coffee filter fastened around the bottom and gathers in a flat Pyrex dish floating in a pan of hot water below. In case there's a spark, the tank is also equipped with a vapor lock. As soon as the butane turns into vapor, the pressure-control valve locks up so that the tank can't ignite.

"With smaller tanks, there's more pressure, so it takes about a minute and a half for it to come out," de Sailles says. "With this bigger tank, it takes about double the time because there's less pressure, but the quality is still great."

Sometimes a tube will be processed a second time for food-grade oil to be used in edibles. When the run is done, the plant matter is discarded in dumpsters set up by the state and the dish is set aside to allow the butane to evaporate, which is dispersed using special fans. The water in the pan must be kept at approximately 110°F to 115°F—just hot enough to boil away the butane without burning the extract—for about 15 to 30 minutes. After that, it's ready to be transferred to one of Top Shelf's two Across International vacuum ovens for its main purge.

First, the dish is placed in the small oven set to 45°C (approximately 115°F) for 20 to 40 minutes, where the heat and pressure pop any bubbles and siphon out most of the butane, causing the oil to muffin up like a soufflé. Next, the purged extract is scraped out, put on a sheet of parchment, transferred to the larger, slightly cooler oven (around 40°C) and slow-purged a second time for about 48 hours. The total purge time depends on several factors: the temperature and pressure of the oven, the cannabis strain used (let's call this one Everlasting Globstopper), and the amount of patience on the part of those doing the extraction.

At Pink House, Cumings sometimes leaves a run in the oven for up to a week and a half. For the main purge, they scrape up the extract with scientific-grade stainless steel blades and place it on a

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silicone mat (e.g. an Oil Slick Pad or Dab Mat) and into one of Pink House's five vacuum ovens (depending on the desired pressure for that particular run). Every vacuum pump—including the kind used to clean rugs—has two ratings: its ultimate vacuum (or suction power), which is measured in microns (μ m), and its flow rate (or air speed), which is measured in cubic feet per minute (cfm). Pink House has a variety of different pumps, including an oil-free Rocker 600.

"If any solvent comes through the line, it will end up getting trapped in here," Cumings says. "And if it doesn't, there are actually two little filter ports that exhaust the solvent out."

Pink House also has a secret weapon: a \$20,000 turbo molecular vacuum pump, with a force of 57 cfm and an ultimate vac capability of just 1 µm—capable of achieving 99.999 percent vacuum. "On this small oven with 10 cfm, it takes 40 minutes to achieve its lowest vacuum," Cumings explains. "With the turbo molecular pump, we can do it in about three minutes."

Since cannabinoids are extremely photosensitive, the windows on the oven doors are kept covered to prevent the extract from losing potency and darkening in color. "If you're trying to avoid budder, you want to be consistent with your temperatures," Cumings says. "I don't like to go any hotter than 113 degrees, because you have volatile terpenes in there. As soon as they begin to warm up, they can become activated and begin nucleation."

Nucleation is the process whereby a substance undergoes a change in structure, which is triggered around certain focal points known as nuclei. There are two kinds of nucleation: homogenous nucleation, which occurs due to changes in pressure or temperature, and heterogeneous nucleation, which occurs in response to foreign nuclei (such as dust particles).

When the main purge is complete, the oven is depressurized and the extract is taken to an inspection table (an X-ray light box). There, it's examined under a loupe for any contaminants that may have gotten into it (and could cause heterogeneous nucleation), which are then removed using a pick.

When an extract nucleates homogenously, it's known as auto-buddering. One way to help guard against auto-buddering is by washing or "winterizing" the extract. As an independent contractor, Top Shelf only does washes if requested by the client. While Pink House's concentrates



after a run is purged.

Filtering out the alcohol after a wash

are strictly proprietary, they too winterize on a case-bycase basis: Some runs that its extraction-savvy professionals know contain high levels of fats or lipids might get winterized right off the bat; other times, they'll wait and see.

"I'm not against budder as much as I'm against an inconsistent product," Cumings says. "If you want to put out budder, put out budder—but don't put out shatter that turns into budder. Still, I would rather see something auto-budder for some reason than somebody whipping it—because if you're not cleaning it first and you whip it, you are probably trapping solvent bubbles that will never make it out."

"Purity isn't necessarily quality," de Sailles cautions. "If you get to 90 percent purity with THC, it's going to be flavorless ... you'll be missing a lot of the terpenes, which actually affect how high you get, because they determine how much of the THC your body uptakes."

Cumings agrees: "Terpenes and

flavinoids are the getaway driver for THC. If it were just about THC, we would all be smoking Marinol. You need a combination of all those things."

For Pink House's washes, Cumings has been experimenting with the 195-proof organic grape ethanol they use for tinctures rather than the standard isopropyl alcohol or Everclear grain alcohol. "We're trying to use all the finest ingredients," he states, indicating the ethanol. "This costs me \$250 a gallon, but it's superclean and a little grapey. You can smell the essence in there."

The extract is dissolved into this secondary solvent, and the solution is placed in a beaker and frozen in the cryogenic chamber. When it comes out, it's poured into a funnel through a laboratory-grade filter to recapture as much of that costly ethanol as possible. Then it's transferred into smaller Pyrex dishes for processing.

"Once you've got more than 40 or 50 grams in a dish, it changes how it handles," de Sailles observes. "So it's easier to do it in smaller batches."

"A lot of this stuff we do, you can't portion it up properly," Cumings elaborates. "It's like with growing: When you do a basement grow, you can't then go into a warehouse and just multiply it by 50 ... you have to change *everything*. It's the opposite with this stuff; we have to figure out how to scale up the small batches, like a craft brewery. We'll make 50 small batches at once, **as** opposed to making one big batch and screwing everything up or altering the product. "Then we take those small

batches and stretch them out," Cumings continues. "Surface area is the key to everything—we're trying to get these as flat as possible. Steven [Lewis, the lab's top Abstractionist (Isopropyl Hash Extractor)] has perfected a technique where he can get the maximum amount of surface area."

With so many different techniques and so much bad information out there, having tested methodologies and accurate information is essential for the progress of the industry. But while some extract artists share their knowledge freely online, the really good ones often guard what they've learned to maintain a competitive edge. Cumings seems to fall somewhere in between.

"I'm all for the Kumbaya moment of wanting to help everybody learn to the point where they're not killing themselves," he says. "But it's no secret that



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this is a for-profit business—and frankly, it's not my responsibility to teach you what I've literally spent hundreds of hours researching. Plus I'm still learning myself, and I never want to have on my conscience some jackass watching my video and then blowing up."

After the extract has been winterized and filtered, it goes back into an evaporation chamber, where it's kept at about 90°F until it's fully dehydrated and any residual alcohol has been vacuumed out. When it's completely dry, it's given one more quick pass in the vac oven (a *third* purge) and voila—we have Snozzberry Shatter.

Over at Top Shelf, each batch is subjected to a test burn before any product is sent out. "You heat up a titanium nail, put a dab on there and just listen," de Sailles says. "It'll tell you everything you need to know. If you see jumpers popping off, or if it crackles at all, then it's not clean yet." In that case, it's returned to the oven for another purge; luckily, this Globstopper Goo is clean and ready for packaging.

Back at Pink House, we're off to the packaging room, where our newly made Snozzberry Shatter is weighed out on state-certified scales. The run is marked with its final weight, the strain used, the



From top: Snozzberry Shatter is placed on parchment paper; Some of Pink House's Rare Dankess #3 BHO packaged for distribution.

Go behind the

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date and the initials of whoever processed it. Then it's broken down into half-gram increments and wrapped in small pieces of unbleached parchment paper, which de Sailles and Cumings both feel is safer than plastic containers. "A lot of people dab straight out of their plastic containers, and if you clean out those containers after the product is gone, you'll see the scar marks from sticking the hot dabber in there," Cumings observes. "My concern is that if you're melting the acrylic, it's going to be off-gassing into your product."

With the Snozzberry Shatter and Globstopper Goo produced, purged and packaged, my adventure in these waxy wonderlands has drawn to a close. Though my tour didn't end with a glass elevator shattering through the roof and soaring out across the sky, it did end with some scrumdiddlyumptious shatter, a smoke-filled glass chamber, and *me* soaring pretty high. And while these two "daboratories" may differ somewhat in their scale and methods, they share the same dedication to their craft and the same desire to create clean, safe, effective and enjoyable extracts.

"We have a responsibility to put out a consistent product, both in quality and quantity, for the people who need this as medicine," Cumings affirms. "That's the most important thing."

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Senior cultivation editor Danny Danko lays out this year's choices for the best marijuana genetics available to purchase for growers, patients and cannabis connoisseurs.

Toplo Strains of

This page: Serious 6 cured and dried; opposite, Serious 6 growing close to harvest.



Serious 6 Serious Seeds

After 20 years of selling just five superlative strains, Serious Seeds has finally added a new variety to their roster. Breeder Simon worked for over a decade to produce and refine the incredible selection known as Serious 6, a flavorful and cerebral *sativa*. He tamed an African landrace with an undisclosed Canadian strain to stabilize some of the more extreme *sativa* characteristics and produced a moldresistant outdoor strain that finishes by the end of September in Holland.

Be sure not to overfertilize the Serious 6, as the leaves will brown up and fry at the first sign of too many nutes. Farmers really enjoy the bright pink pistils and high calyx-to-leaf ratio, and smokers appreciate the hints of citrus and anise as well as the very cerebral high. Bottom line? Serious 6 turns out to be well worth the wait, so grab some seeds and get growing. Flowering time: 8 to 9 weeks Lineage: African *sativa* landrace x unknown Canadian variety *seriousseeds.com*

Loud Scout

Loud Seeds

On the heels of last year's Top 10 Strains showing for the famous Girl Scout Cookies comes a new hybrid from Loud Seeds with a ridiculously high potency level. Loud Scout, a cross of the aforementioned Girl Scout Cookies and Platinum OG Kush, labtests in the mid-20% THC range and is a great yielder to boot.

Loud Scout really hit the radar when she took first place in the hybrids category at the 2012 Cannabis Cup in Amsterdam. Judges loved her herbal-tea scent with hints of cherry on the inhale, but the strength of her high is what truly won over seasoned pot aficionados. Farmers should ensure proper growing conditions, as any fluctuations or issues with heat or pests will cause her to stretch and produce smaller buds. Despite being a little finicky, Loud Scout will reward patient cultivators with a superstony harvest of sweet nuggets. Flowering time: 9 to 10 weeks

Lineage: Girl Scout Cookies x Platinum OG Kush *loudseeds.com*



Dreamweaver *MTG Seeds*

This relatively new seed bank has been busy of late building a strong reputation for stable, elite genetics that boast effective resistance to mildew and mold (so important when growing in MTG's Northern California climate and many other places). The *sativa*-dominant Dreamweaver is a sight to behold: Pink and lavender calyxes and pistils abound throughout, and the growing plants shine brightly like diamonds from the many swollen gland heads.

MTG backcrossed the Alpha Blue (Blue Dream x Sour Diesel), the second-place winner in our 2011 Denver Medical Cannabis Cup, with the original, legendary NorCal Blue Dream to create Dreamweaver. The *sativa* traits are at the forefront of this selection, which grows long and lanky early on but ultimately fills out into dense and flavor-filled nuggets sure to please the discerning puffer. And heads love the hash made from Dreamweaver, as it retains the intoxicating perfume of the growing plant. Flowering time: 10 to 11 weeks Lineage: Blue Dream x Alpha Blue *mtgseeds.com*

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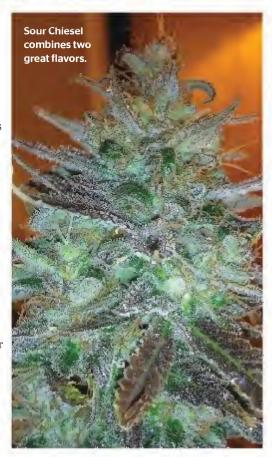


Sour Chiesel

Big Buddha Seeds

It's about time somebody combined the flavors of New York City's finest and the UK's pride and joy, and who better to do it than Mr. Big Buddha himself? Using a male NYC Diesel from Soma, breeder Milo pollinated his legendary Cup-winning Cheese strain to produce Sour Chiesel, a bold and beautiful new entry on the cannabis scene. The blending of the grapefruit-tinged male and the pungent, old-school Afghani female resulted in a spicy concoction sure to please the palate.

Sour Chiesel places slightly on the *sativa* side of the hybrid scale, so she'll stretch a bit before settling into her flowering time. The buds fill out nicely, however, and the unique flavor and distinctly long-lasting and uplifting high make this a connoisseur's dream come true. Also, hash made from Sour Chiesel delights the senses, with complex, incense-like flavors on the inhale and subtle, fruity notes upon breathing out. Flowering time: 8 to 10 weeks Lineage: Soma NYC Diesel x Big Buddha Cheese *bigbuddhaseeds.com*





Darkstar grows

into greasy trichome-covered

nuggets.

Darkstar

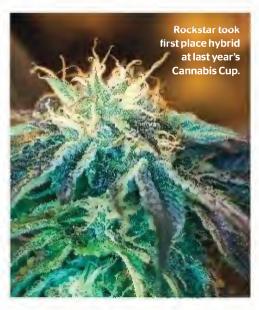
T.H.Seeds

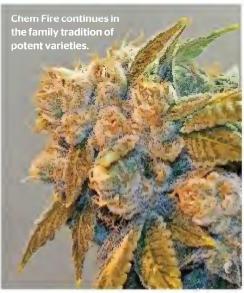
Twenty years after starting their celebrated seed bank, Doug and Adam of T.H.Seeds are still innovating, combining classic cannabis genetics with potent new material. Their latest variety, Darkstar, was featured in our June 2013 "Strongest Strains on Earth" feature after testing at a whopping 22% THC at the 2012 Cannabis Cup in Amsterdam. This strain does not sacrifice flavor for potency, however, providing a taste of the Hindu Kush region from which it originated-spicy and robust, with the thick smoke characteristic of its heritage.

This almost pure *indica* actually flowers a bit longer than most *indicas* but amply repays the extra fortnight. The easy-to-trim Darkstar keeps a low profile, growing short but thick branches of dense, fragrant buds. Medical users seeking appetite enhancement report strong cases of the munchies from Darkstar, which is available in regular or feminized seed form.

Flowering time: 10 weeks Lineage: Purple Kush [Hindu Kush x Purple Afghani] x Mazar-i-Sharif

thseeds.com





Chem Fire

Rockstar Bonguru Seeds

The secret that some British Columbia growers have been keeping to themselves is now known around the world: Ever since Rockstar won second place in the hybrids category at the 2012 High Times Cannabis Cup, people are hip to this indica-dominant Vancouver staple that is perfect for growing "sea of green" (SOG) style. The dense branching, typically wide fan leaves and high calyxto-leaf ratio make this plant easy to grow and easy to manicure during harvest.

Rockstar is also somewhat of a low-odor strain for growers in tight situations looking for a plant that won't announce its presence to their neighbors. The typical *indica* high is great for medical patients seeking to soothe body pains. Hash made from Rockstar absolutely oozes with sticky resin, with a musky, spicy sandalwood flavor that leaves an appealing aroma lingering in the room.

Flowering time: 9 to 10 weeks

Lineage: Paradise Seeds Sensi Star x Soma Sacred Seeds Rockbud

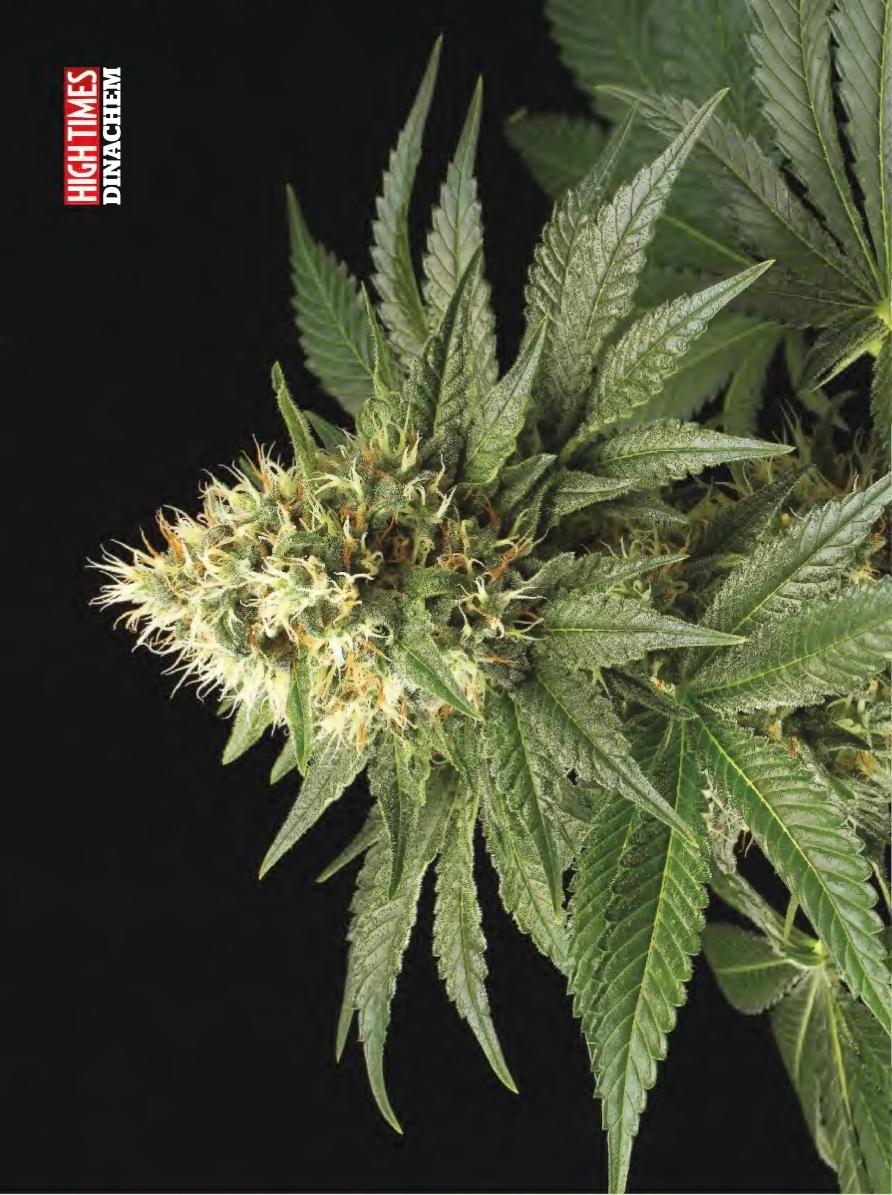
bonguruseeds.com

BC Bud Depot

The signature taste and scent of the legendary Chemdog strains have captivated growers and smokers for the last decade, but it's the ridiculous potency level that truly sets them on a higher level. (Some even complain they're too strong!) Matt from BC Bud Depot sprinkled the original Chem D clone-only cut with the pollen from a Fire OG stud, then picked and chose from the offspring to develop and refine the Chem Fire.

Retaining the diesel-fuel odor and greasy nug profile of its parents, yet with a bud structure that surpasses the yields of both, the taste of Chem Fire stays on the tongue long after smoking. The high lasts hours as well, benefiting medical patients seeking relief from pain or insomnia. The buds from this hybrid grow super dense, so avoid foliar feeding during the flowering stage. Flowering time: 9 to 10 weeks Lineage: Chem D x Fire OG Kush BX3 bcbuddepot.com

Freedom 35





William Balling

Tangie



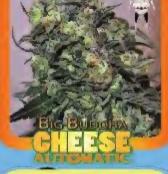
BIG BUDDHA SEEDS





BIG BUDDHA CHEESE

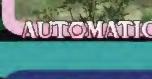








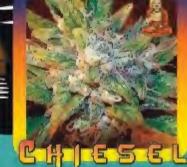






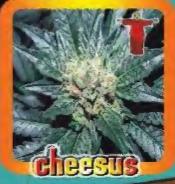








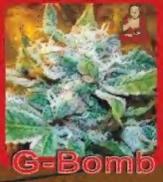














www.bigbuddhaseeds.com

Freedom 35

Dr. Greenthumb Seeds

Named for a pot-growing operation conceived by Julian of the Trailer Park Boys, the strain called Freedom 35 has several unique characteristics. Imagine the benefits of combining almost no stretching period with an impossibly short flowering time, and you'll realize what makes this plant so special. Vegetate Freedom 35 to the height you want and then switch to flowering with virtually no stretching period, your plant will stay close to the size it was when you flipped the switch, filling out quickly into thick, solid colas.

Feminized Freedom 35 was made popular in the Canadian wilderness, where it finishes long before thieves and frost can do their worst. The result is a potent yield of heady colas with a subtle sweetness backed by flavor notes of caramel. Hash made from this strain delivers a high that is almost psychedelic for the first short burst immediately after smoking, before mellowing out into a nice, spacey buzz. Flowering time: 5 to 6 weeks Lineage: Iranian *indica drgreenthumb.com*

Dinachem

Dinafem Seeds

In a collaboration we've been waiting a long time to come to fruition, Dinafem Seeds and the original Chemdog combined forces to unleash Dinachem, a feminized hybrid from the famed clone-only line of elite Chem genetics. The original Chemdog '91 clone was sprinkled with Guava Chem pollen to revive the inherent potency and flavor, which seemed to have been a bit lost over time. After a careful selection process over many generations, the result is a feminized version that stays short and stocky, yielding greasy colas covered in glistening trichomes.

Smokers have long touted the effects of Chem strains, and Dinachem certainly doesn't disappoint. Devastatingly potent, with a strong, lemony diesel-fuel taste accompanied by hints of pine and licorice, this is a mouthwatering flavor bomb with a medicinal high that lasts and lasts. The partnership has indeed flourished, so look out for more Dinafem/Chemdog releases in 2014.

Flowering time: 8 to 9 weeks Lineage: Guava Chem x Chemdog '91 *dinafem.org*

Tangie

DNA Genetics

Southern Cali tokers will remember a strain called Tangerine Dream from the mid-'90s even B-Real of Cypress Hill speaks of it fondly. Most say it was Cali-O x Skunk, and it had a distinct citrus scent and flavor that have never been duplicated—until now. The expert breeders from DNA Genetics, Don and Aaron, crossed the clone-only Tangie with their bud-heavy Crocket's Selection to build the basis for what would become their award-winning Tangie.

This is a *sativa*-dominant plant that stretches all the way through the fifth week of flowering. If you resist overfeeding, you'll be rewarded with some of the tastiest and most powerful smoke on earth. The smell of ripe tangerines overpowers in any growroom filled with this strain, particularly once the buds are harvested and drying. Of special note: Concentrates made using Tangie—both solventless and otherwise—have dominated every Cup they've been entered in due to the unique bouquet and hard-hitting high. Flowering time: 9 to 10 weeks

Lineage: Clone-only Tangie x Crocket's Selection *dnagenetics.com* 🔆

Bonus! Our cover girl Silver Shaman makes her *High Times* debut!



Once we saw and smoked our beautiful cover girl Silver Shaman, we simply had to include her on our list. Shaman from Dutch Passion was crossed with TGA Genetics' Deep Purple to produce something completely unexpected. Both parent strains are dark purple varieties, yet their offspring boasts light green buds with bright red hair, and only the fan leaves retained the lavender coloring of its inheritance. Medicinal users tout the *sativa*-dominant traits of this hybrid as helping relieve anxiety, stress and depression.

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Double Your Pot Production

Our Canadian cannabis correspondent reveals the secret to growing twice as much marijuana with just a few simple changes to your room and routine. *Story & Photos by Erik Biksa*

A Double Take

Medical pot growers put in a lot of hours before their buds are "patient-ready." On top of that, they often invest a considerable amount of money, especially if they're growing indoors under lights for consistent year-round production. Growing equipment and supplies are expensive, even when growing on a small scale, so every major purchase should boost yields. Keeping it all running with the cost of space, water, power, gas, etc., really puts some pressure on the grower to achieve results—otherwise, the project may not be sustainable or will be short-lived at best.

What if there were ways that let you double your production levels while improving on your cost-versus-production ratio? In this article, we're going to look at two ways to increase your production, potentially even doubling it. Actually, we're going to look at *three* ways, because the third method (improving genetics) is something that anybody can do—and it won't cost a lot of money.

Big Production, Same Size

In our first model, we're going to look at an effective way to seriously increase production levels using the space you already have. In this particular case, the grow space can be moved anywhere a pickup truck can go, because it happens to be mobile. However, the focus here is on what helps increase the output of the endeavor rather than its mobility. The vision here is "double" indeed, because this medical grower stacks one garden right on top of the other for double-decker bud production.

Almost every toker appreciates a good sandwich, and this one is a dream for patients and growers alike because it produces high-quality buds at almost twice the efficiency over conventional indoor gardens using highintensity discharge (HID) lights. Premium plant genetics—something we're going to talk about later in this article—are cultivated here in moderately deep, double-stacked raised beds constructed of wood framing, lined with 6-milliliter polyethylene plastic and filled with a peat-based commercial soilless mix.

Batwing-style reflectors hold the 1,000-watt high-pressure sodium (HPS) grow lights, each of which covers approximately 1 square meter (about 3.3 by 3.3 feet) and is hard-mounted approximately 1 meter above the surface of the growing medium. This means that each "layer" of this bud-growing sandwich is using about 4 feet of vertical space. The inside of the modified trailers housing these medical gardens is just over 8 feet, so squeezing in two stacks of garden space takes some planning—but it's definitely doable.

Proper ventilation techniques reduce heat and add to eventual yields. Q.



Side Lighting

Remember that unless plants are getting strong side lighting, there isn't much point in growing them over a few feet tall when it comes to applying artificial light sources like HIDs or fluorescents. That's because the intensity of light diminishes very quickly with the distance travelled. Weak light yields wispy buds of reduced quality that are more prone to growing problems such as insects and diseases.

Because the plants have to stay shorter in this setup and each plant is never far from a strong source of light overhead, side lighting isn't necessary here. Having strong light overhead when the temperatures are managed correctly helps to keep the plants from stretching toward a light source, maximizing production in this tightly packed double-decker garden. Stronger lighting may also allow higher planting densities when plant heights and branching are kept to a minimum.

Fixed Lights

For a lot of growers, the idea of not being able to raise or lower their lights relative to the height of the plants beneath them may sound strange, perhaps even a bad idea. But picture how tight the vertical space is here: about 4 feet from the dirt to the bulb. A 1,000-watt light typically demands about 16 inches of clearance; that's only 2.5 feet of height for the plants.

By the time the little plants have gained a few nodes and can handle stronger light levels, they have physically reached this limit. Not only is this effective for the crop, it means less work for the grower. Some strains will typically want to stretch, which means they will not be practical selections for a high-density, low-ceiling



garden. By planting fewer numbers and training them horizontally below the light to encourage side-branch development, this system allows for a slightly wider range of cannabis strains—including *sativa* hybrids—to be cultivated with success. However, there are limitations, so selecting the right genetics for your particular growing style is always an important consideration.

Packing in and operating all of these lights in a relatively confined space sets the stage for excellent yields, but it also generates a tremendous amount of heat that needs to be scrubbed or evacuated in order to prevent the garden from overheating and the crop from suffering. Thus, a "Chernobyl switch" (i.e., a hightemperature shutdown) is a must. Use air-cooled lighting to optimize cooling efficiency, especially if you also incorporate air-conditioning and a source of carbon dioxide. Running the garden "sealed" using controlled environment agriculture (CEA) further increases the potential for heavy yields and faster growth ratesand it also makes our second method for doubling your potential yields possible.



Hydro-Lung: Two-Sided Production

If you construct a CEA environment so that you don't have to vent the grow space with outside air (which can make your results seasonal), your production levels will typically increase. With CEA, growers can efficiently enrich the environment with elevated levels of CO_2 , effectively doubling the normal atmospheric levels of the gas compared to in/out ventilation.

A CEA setup will require an air conditioner and a CO_2 tank or generator, and typically a dehumidifier as well. These are pricier pieces of growing equipment, but they're necessary for success. By installing the AC and CO_2 generator in a "lung room" rather than in your growroom, you can double their work output for your grow, because you can then install a duplicate (or smaller) system of lamps, reflectors and fans without having to add more ballasts, air conditioning or CO_2 equipment.

Essentially, you can use all the heavy, expensive gear like ballasts, AC units and CO_2 generators in an existing grow setup *twice*, thereby doubling the bud bang for your buck. Here's a list of things you'll need to do the job:

• A relay for the lighting (which allows one ballast to run two lamps at different times)

• A second set of lamps and reflectors that duplicates the original setup

• A "clean" room to dedicate as the lung room

• Lots of flex ducting and two fans (though these won't be necessary if you already have fans on your carbon scrubbers).

DINACHEM my chemical friend



THANKS BREEDER CHEMDOG FOR THIS AMAZING GENETIC



Reeferman Seeds' Grand Daddy Purple is a fruity tasting heavy yielder. High Trees December 20

The Story Behind Reeferman Genetics

Ne of the easiest ways to increase your production can also be the most rewarding on a number of levels. A lot of the plant genetics that growers cultivate are acquired via clones, and genetics get tired over time. Cannabis is an annual plant, and in natural settings it doesn't live more than a season—that's why it makes seeds!

When plant material is forced to live for years and years, it gets tired because it is constantly under attack from environmental stresses and even things like viruses. Yields and vigor can decline with time, causing genetic drift.

Starting a crop from regular or feminized seeds can be a rewarding experience: You can get faster growth rates and hardier specimens from fresh plants, which also have the advantage of growing a taproot (clones do not). A taproot anchors the plant and goes great distances to get water and nutrients.

Reeferman Genetics was started out of a basement around Commercial Drive in East Vancouver, Canada, several years back by two cannabis aficionados, Mr. A and, of course, Reeferman himself. They began with a simple but monumental goal: to develop and offer the best possible cannabis genetics for medical growers. Mr. A and Reeferman had seen firsthand how many medical growers were struggling with low yields and weak plants that always seemed to develop problems like spider mites.

Reef brought to the table his treasure trove of stellar global cannabis genetics, which included pure landraces from places like Thailand, Mexico, Colombia and Afghanistan. His selections even included exotic strains like the Vietnam Black (a parent of his Cannabis Cup-winning Willie Nelson strain). Reeferman made some outstanding combinations from the solid catalog of genetics he developed, and many of these—like his famed Pink Kush—are still available today.

A number of the building-block strains that Reeferman Genetics uses today were the result of careful selections from very large numbers of plants, said to have been carried out by Reeferman during a project in Mexico. Being open to new possibilities, Mr. A then began to introduce some local favorites into the mix and improve on them by recombining them. His Early Purple Kush is fast becoming a global favorite. Crosses like BubbaRock Kush (Bubba Kush x RockStar Kush) continue to blow minds and attract attention, especially from medical patients who need Kush strains.

The catalog of cannabis varieties that Reeferman Genetics has collected and developed to date is immensely impressive, to say the least. If it's worth growing, they probably have it—with the added advantage of offering these strains in seed form (regular or feminized). Even their male plants look fantastic throughout the growing cycle. While touring one of their rooms, I witnessed a Vietnam Black male (a pollen donor) and detected entirely new fragrances in its bouquet, while the resin content and strength of aroma coming from a real-deal NYC Sour Diesel pollen donor bordered on the sublime. Needless to say, any of the carefully selected parent plants that receive this pollen are going to yield seeds that produce incredible cropping results.

If you haven't started from seeds before, it's an easy process—especially when you have good-quality seeds to begin with. One popular method involves dropping them into a glass of water and covering it with cellophane. Put the glass somewhere warm and dark, such as the cupboard above your fridge, and then check on the seeds every 12 hours. In about 24 hours, most of the seeds should be showing a small root tip sticking out of the seed jacket. Don't let the seeds sit in water for long after they sprout.

Next, prepare your growing medium and poke a small hole into it, about 1/4" deep. Using clean tweezers, gently drop the seed in, root tip down, and just as gently cover it with medium. Then lightly water and watch it grow!

Check out medicinalmss.com for more info.



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Side-by-Side Growrooms

A split or "Y" needs to be made for moving air from the AC in the lung room to each of the growrooms via ducting from the air-handling portion of your split or water-cooled AC (which is required for CEA setups). The unit should run 24/7 to constantly circulate air from the "lung" into the two separate but mirrored growrooms, while fans in these rooms (ideally connected to a carbon filter) return the air back to the lung. To repeat, this loop—AC constantly delivering air into each of the growrooms, and a fan in each room bringing it back to the lung—runs 24/7, just like a good set of lungs should!

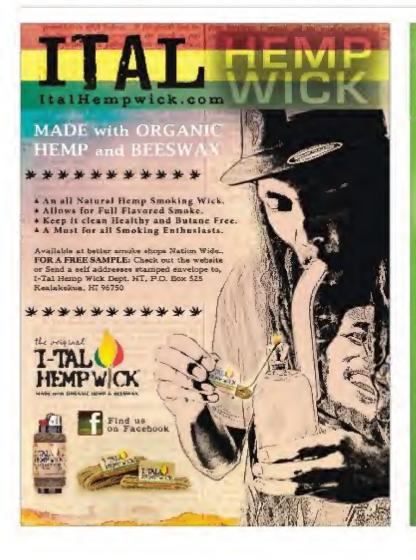
The lung room will house your cooling thermostat within the air-flow tube coming back from the rooms. When it gets too warm, the AC will kick on. This effectively keeps the room with the lights on from overheating, and it adds a good "nighttime" effect for the other mirrored room that is on the dark side during the flip from the relayed lighting. The CO₂ monitor can measure the air in either of the rooms or just in the lung room and operate the CO₂ generator or tank as required. Note that plants aren't harmed by receiving CO₂ during the dark cycle, but only the ones receiving light will use the CO_aenriched air that's being circulated constantly between the two growrooms interconnected to the lung.

For best results, keep an independent dehumidifier in each of the growrooms rather than the lung room. Also, be sure to maintain and regularly check your equipment, like the AC units and CO_2 system, because it will be working harder. And a final pro tip: Capture the condensate from your well-maintained dehumidifier and add it to the water (either RO-filtered or tap water) that you use for crop feedings. This is "living water," and your plants will love it. \leq



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Ice-O-Lator

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An inter-Andean valley in the Norte Chica. heartland of cannabis cultivation in Peru.



Lima rooftop homegrown Corinto sativa strain. One sol coin is about the size of a quarter.



fter last year's victories for cannabis legalization in Colorado and Washington State, the US prohibition regime is under unprecedented pressure. But when it comes to

breaking with the US-led War on Drugs, there is little awareness in Gringolandia of the strides taking place in South America. Over the past decade, Argentina and Colombia have removed penalties for personal-use quantities of drugs, and Uruguay just passed a measure that essentially legalizes cannabis, with even cultiva-

tion permitted under state regulation. Adding insult to injury, Venezuela, Bolivia and Ecuador have all barred the DEA from operating in their territories.

That leaves Peru, now said to be overtaking Colombia as the Andes' top coca producer, and a burgeoning cannabis producer as well. Like Colombia, Peru remains a DEA stronghold in South America-even as it moves toward the legalization of personal-use quantities. Both countries have experienced long and bloody counterinsurgency wars related to the struggle for control over coca production. Much to Washington's displeasure, Peru even suspended eradication two years ago-until the empire struck back. But now activists are increasing pressure to break with the prohibition model, both in the remote campesino communities of Peru's mountains and jungles, and in the streets of the country's capital, Lima.

The Peruvian Spring

Peru, with little fanfare, eliminated all penalties for personal possession of cannabis as well as cocaine in 2006; even public use is officially "de-penalized," as the Peruvians say. But police abuse of young tokers who don't know the law remains a problem. The coca-eradication programs run by the National Police in the high jungles on the east side of the Andes are a source of resentment and unrest-even to the point of fueling a revival of the Shining Path guerrilla movement in parts of the coca-growing belt. And in recent years, cannabis-eradication campaigns have been launched in the Andean valleys.

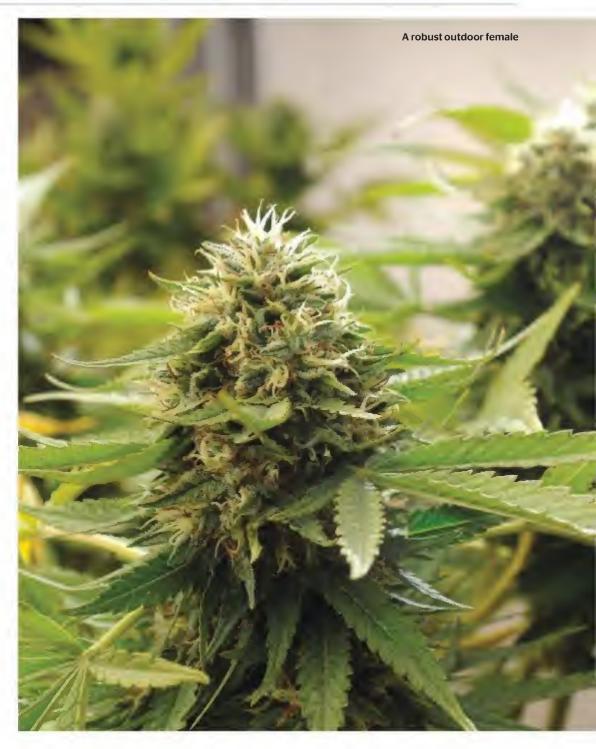
The election of the left-leaning populist Ollanta Humala in the 2011 presidential race was looked to as a turning point. Humala appointed Ricardo Soberón as his Drug Czar (officially, the head of the National Commission for the Development of Life Without Drugs, or DEVIDA). Soberón had been a longtime vocal critic of prohibition with organizations such as the Andean Commission of Jurists. In August 2011, he called off eradication in the principal area where it was underway, the restive Upper Huallaga Valley. That ban was quickly extended throughout the country.

Soberón, interviewed at the Lima office of his nongovernmental organization, calls his appointment to DEVIDA "the most fantastic moment of my life."

"My first day on the job," he recounts, "we ended eradication throughout Peru. I went to my office on Monday, August the eighth, spoke to my staff, and then I received a telephone call from a peasant. He said, 'Dr. Soberón, the police are overtaking the area and provoking us."

According to Soberón, the peasant calling from coca-growing Tingo Maria in the Huallaga—told him that the police were threatening the *cocaleros* with reprisals for having supported Humala. "So I immediately called the president, and he ordered every US agent in Peru to return to their bases. He was pissed off."

But the next day, Soberón continues, he was personally confronted at a breakfast cabinet meeting by the US ambassador, Rose M. Likins, accompanied by a DEA representative. They expressed their displeasure over the eradication halt. "And this started the worst media campaign against me," Soberón says. "In every single newspaper, TV station, radio—and, of course, the political opposition—they were accusing me of being a *cocalero* supporter, a legalization



supporter, et cetera, et cetera."

Nevertheless, the progress continued. On September 15, Soberón presented his strategy to the Peruvian Congress and saw it approved. It called for reducing illegal coca yields both by providing subsidies for legal crops like coffee and cacao, and by expanding the market for traditional domestic uses like teas and chewing. "Humala supported me, and the next day I got to work," Soberón says. "September, October, November—and then Conga happened."

Humala, like more than one Peruvian president before him, ended up doing the proverbial 180 once in power: a tilt to the right and a cabinet purge. In this case, it was prompted by unrest over the controversial US-backed gold-mining project at Conga, in the north of the country. After National Police fired on peasant protesters, leaving several wounded, the progressive-minded prime minister, Salomón Lerner, resigned on December 10—and under Peruvian law, the entire cabinet had to follow suit. Humala formed a new conservative cabinet led by Interior Minister Oscar Valdés, a former military officer who'd served as Humala's instructor in the army during the war with the Shining Path in the 1980s. The Interior Ministry, it should be noted, controls Peru's militarized National Police force.

"Salomón Lerner was sacked, and Oscar Valdés came in," Soberón says. "And he hated me. And the US ambassador immediately started to have very close ties with him. At the end of the day, he decided to get rid of me." Soberón lost his position in January 2011, after five months in office.

"I thought that Humala was going to support me, but there were big political reasons why he decided to change." Among these, Soberón cites the president's ambition to see his wife, Nadine Heredia, succeed him in office (since consecutive terms are barred by Peru's constitution). "And for that, Humala needs—at the least—US acceptance. So I think basically the US told him, 'You give us an anti-narcotics policy.""

Humala's replacement for Soberón was Carmen Masías, a pro-eradication advocate from the Information and Education Center for the Prevention of Drug Abuse (CEDRO), a Peruvian NGO funded by the US Agency for International Development (USAID). After a brief Peruvian Spring, the eradication campaign was back on.

Anti-Prohibition Activism

But even as the *cocaleros* in the highjungle zones protest coca eradication, a core of activists in the country's capital is pushing to relieve police pressure on cannabis and personal possession. Soberón's NGO, the Research Center on Drugs and Human Rights (CIDDH), cooperates with local Lima activists on the "Green Line"—an emergency phone line for young people who have been busted for possession in spite of the law.

A co-founder of the Green Line is Peru's leading cannabis activist, Luis Gavancho, who also works with the advocacy group Legaliza Perú. "People don't know the law, so the police use preventative detention for extortion," he explains. Under the detention law, citizens can be held for up to 15 days without charge on suspicion of drug trafficking, terrorism or espionage. Such detention requires the approval only of a prosecutor, not a judge, and thus the police can basically impose it at will. "They threaten to treat possession as suspicion of trafficking-it's a lever for extortion," Gavancho says. Hence the need for the Green Line, which was launched in 2011.

Legaliza Perú is trying to change the nature of the drug-policy debate in the country, with its representatives going up against speakers from the pro-prohibition CEDRO on the radio and in other media. And every May since 2010, it has been organizing Peruvian participation in the Global Marijuana March movement, with cannabis-law reform supporters converging on Lima's Plaza Francia and marching through the city's central district. "We were really proud that we had over a thousand people marching for the first time this year," Gavancho says.

There was a police presence at the Marijuana March but no arrests, despite some open toking. Soberón and other legal observers were on hand, and public cannabis use is technically not an offense in Peru. It is treated simply as possession—and under Article 299 of the country's penal code, personal possession carries no penalty. This provision was actually passed in 1991, but without



Even as the *cocaleros* in the high-jungle zones protest coca eradication, a core of activists in the country's capital is pushing to relieve police pressure on cannabis.

any quantitative definition for "personal possession." In the 2006 reform, quantities were established: eight grams for cannabis, two grams for cocaine.

Cannabis cultivation remains illegal under Article 296, but it's definitely on the increase nonetheless. Cultivation in Peru is still almost entirely for internal consumption, with the cannabis being grown by independent producers—usually campesinos under contract to a middleman who collects the crop and takes it Lima and other markets, with no link to the criminal networks that control the cocaine traffic. The crop arrives in the cities as *moño*, or bud, not compacted bricks.

The most common varieties are mainly *sativas* that have been making their way down from Colombia, though some distinctive Peruvian strains have been emerging. Highly prized is the Black Tingalesa from Tingo Maria, in the high jungle

where the Andes start to drop toward the Amazon. Piura Red, from the mountains overlooking the coast in the far northern Piura region, is related to Colombia's famous Punta Roja (Red Point). But it is the Norte Chico—the mountains overlooking the coast in the regions of Lima and Áncash just to the north—that forms the heartland of cannabis production. The inter-Andean valleys that cut through the mountains in the Norte Chico have seen repeated eradication of plantations by the National Police in recent years—some with up to 5,000 plants, all burned in the fields.

Indoor and rooftop growing are emerging in Lima, too. This reporter saw a rooftop grow of a Colombian *sativa* strain named Corinto, after the town in southern Colombia's cannabis zone. An *indica* mix grown from European mailorder seeds was potted alongside it.

Eradication and Unrest

But coca leaf remains the principal focus of eradication efforts. These efforts are mainly underway in the Upper Huallaga, where they continue to spur periodic peasant protests. One of the two surviving factions of the Shining Path remains active there, although it's been in decline since the capture of its leader, known as Comrade Artemio, last year. The other major coca-production area where a Shining Path remnant is making trouble is the Apurímac-Ene River Valley, or VRAE, to the south.

The Shining Path was beaten back by peasant militias in the lawless VRAE approximately 15 years ago, but it has re-emerged in recent years, pulling off some spectacular ambushes and hostage-takings, including of workers on the strategic Camisea gas pipeline. Now, militarization of the region by the army and police is leading to peasant anger further fueling the guerrilla resurgence in a vicious cycle.

Despite pressure from Washington, the Peruvian government has not carried out eradication efforts in the VRAE, in recognition of its sensitivity. As Soberón explains: "The civilian population organized self-defense committees and defeated the Shining Path—and now they will never accept eradication. So there is interdiction, but no eradication. There are no political conditions for it."

Even so, Humala recently announced that eradication will begin in the VRAE this year, but Soberón remains skeptical. "I am very doubtful that it will happen," he says. "Because they know that it will



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immediately give political support to the Shining Path. And the peasants will immediately stand up and defend their crops. And that will immediately create a big humanitarian and political and military crisis.

"The Shining Path in the VRAE is determined to continue," Soberón adds. "They protect the convoys that take the coca away to the borders with Brazil and Bolivia. There is a lot of money to be made down there, and the Shining Path understand what cocaine production means for political power ... and they use it."

Coca production in the Upper Huallaga has dropped dramatically in recent years, part of what the Peruvian government and USAID call the "San Martín Miracle," after the administrative region that makes up most of the upper valley. But Soberón doesn't credit eradication for the decrease. He notes that the VRAE has better soil, yielding four coca harvests a year to just two in the Upper Huallaga, and believes that production has merely shifted to the south.

The heartland of Peru's legal coca production is La Convención Valley in the Cuzco region, on the edge of the VRAE. Shining Path infiltration into La



Convención has recently prompted the government to establish a new military command in the province. Troops roughing up and even firing on legal *cocaleros* has sparked protests in the zone.

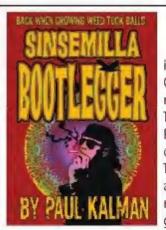
Officially, the Peruvian state maintains a monopoly on the legal coca trade through its National Coca Company (ENACO). But growers complain that ENACO buys cheap and sells high, while users complain that its leaf is dry and crumbly due to an inefficient distribution system. ENACO supplies 3,500 tons of coca a year, but Soberón says that the internal demand for legal traditional use is as high as 10,000 tons. Some of the difference is made up by *cocaleros* selling their crops directly to retailers in the town markets, which is usually tolerated on a de facto basis. This independently marketed stuff is generally held to be of higher quality.

As in Bolivia 20 years earlier, opponents of coca eradication are entering Peru's political mainstream, and they've even gained a few voices in Congress. Valdemero Caceres, a grandfather figure in Lima's activist scene and a veteran advisor to the Confederation of Peruvian Coca Growers, says: "Eradicating coca is crazy. It's a national treasure—it's like eradicating grapes in France."

South America Stands Up

Soberón draws hope from a study that was commissioned by the Organization of American States (OAS) and formally presented at its June summit in Guatemala. The study, which Soberón helped to produce, was the first by the OAS to question the prohibition model. In the days around the summit, even President Manuel Santos of Colombia—traditionally Washington's staunchest ally in South America—expressed his misgivings about continued eradication and prohibition.

"What happened in Cartagena in April 2012 was dramatic," says Soberón,



Sinsemilla Bootlegger by Paul Kalman

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speaking of the OAS summit the previous year, when the decision was made to commission the study. "Obama came, and all the presidents said to him, 'Sorry, Mr. President, but we need to discuss drugs.' And they decided to produce this report."

Soberón believes that even international enforcement efforts are evolving toward a "south-south program" rather than a US-led one. He notes that the Brazilian government "has started to respond as a medium-sized regional power," its forces filling the vacuum left by the forced departure of the DEA from Bolivia.

"I never would have imagined this," he says. "We always obeyed what Washington said on this question. And now things are happening."

Legaliza Perú is also part of an emerging network of like-minded activists throughout the continent, coordinated through such groups as the Latin American Network of Personal Drug Users (LANPUD) and the Latin American Coalition of Cannabis Activists (CLAC). The newly formed CLAC made a strong dissident showing at the fourth Latin American Drug Policy Conference, which was held in Bogotá, Colombia, in December 2012. And every November since 2001, a Copa Cannábica—cannabis



cup—has been held in La Plata, Argentina, bringing together connoisseurs and enthusiasts from across the continent.

Legaliza Perú distributes stickers bearing the image of an AK-47 rifle and the question: "Narcotraffickers want cannabis to be illegal—and you?" In Colombia, big cannabis production has long been under the control of violent cartels, paramilitaries and guerrillas; in Paraguay, the new regional giant of cannabis production, criminal networks from Brazil—such as the notorious Comando da Capital—increasingly control the trade. Despite the eradication programs and corruption, Peru remains a sanctuary of relative cannabis peace in South America, along with Argentina and Uruguay. Whether it stays that way depends on whether the gains of Article 299 can be defended and extended.

Unlike his comrades in Legaliza Perú, Soberón does not speak of "legalization," a word he finds vague and needlessly polarizing. "It is a very provocative word," he says. "I prefer to say 'regulation'—it is much more specific."

But under whatever name, he feels a shift coming. "Things are changing," Soberón offers when asked if he has a message for readers stateside. "There are movements toward a new paradigm both within the United States and in Latin America. You can never succeed in bringing about a change of paradigm in the War on Drugs just in one place-you need to have it going on in both places. And therefore I will urge civil society within the US-consumers, users, activists, et cetera-to keep pushing forward to make local, state-based changes, while we here in Latin America continue to promote national and regional changes. So I would say: Let's continue doing the kind of thing that we are doing." 🖗





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PON TAKING THE STAGE, COME-DIAN ANTHONY JESELNIK SEEMS SERENE, COMPOSED AND UNAFFECTED. HIS DELIVERY IS PRECISE AND DELIBERATE. BASICALLY, HE'S A STANDUP SURGEON DEFTLY SLICING UP AN AUDIENCE UNTIL ITS LAUGHS AND GASPS ARE INTERMIXED.

ORIGINALLY FROM PITTSBURGH, JESELNIK IS THE FIRST-BORN IN A FAMILY OF FIVE KIDS. HIS COMIC CAREER BEGAN IN SCHOOL, HE SAYS, WHERE DARK, INAPPROPRIATE HUMOR WAS HIS CLASSROOM SPECIALTY. HOWEVER, IT TOOK A FEW YEARS ONSTAGE TO HELP HIM REDISCOVER HIMSELF. AT FIRST HE PLIED HIS TRADE DOING OLD-SCHOOL, "LET ME TELL A FUNNY STORY"-STYLE COMEDY, BUT IT CLEARLY WASN'T HIS BAG. HIS NICHE WAS THE DARKER SIDE OF LAUGHTER—JOKES WITH A SOCIO-PATHIC EDGE.

IF THERE'S A LINE TO CROSS, JESELNIK WILL CROSS IT. NATURALLY, COMEDY CENTRAL'S ROASTS WERE A PERFECT FIT FOR HIM: HIS COMIC UNKINDNESS TO CHARLIE SHEEN AND DONALD TRUMP CATAPULTED HIM TO STAR-DOM, AND HE'S SINCE MOVED ON TO HIS OWN TV SHOW, *THE JESELNIK OFFENSIVE*, WHICH JUST CONCLUDED ITS SECOND SEASON.

IN PERSON, HE'S THOUGHTFUL AND ENGAG-ING, EAGER TO DISSECT THE ART OF MAKING PEOPLE LAUGH. COMEDY IS A DEADLY SERIOUS BUSINESS FOR JESELNIK, WHO HAS BECOME A VERITABLE MASTER OF THE "GUT PUNCH," THE KIND OF JOKE THAT BOTH SURPRISES AND RATTLES YOU—AND MAKES YOU LAUGH HARD IN SPITE OF YOUR SO-CALLED "SENSITIVITIES." IN ORDER TO SUCCEED USING THAT WEAPON, A COMEDIAN MUST BE PART PSYCHOLOGIST, PART SADIST AND PART COURT JESTER. JESELNIK'S TOOLKIT IS FULL. When we interviewed Roseanne (July '13), we asked her whether she thought comedy has grown more mean-spirited—and we cited your comedy as example.

I think comedy just goes in waves. Comedy got really silly and observational for a long time; people coming up wanted to do something different. I know I went mean-spirited because it got a bigger laugh. It's a harsher kind of gut punch that I really enjoy.

Woody Allen has said that comedy has its roots in hostility. What do you think?

Sure, and I think a lot of people hide that. I don't know what people need from an audience, but I think a different class of comedians is coming up now who are ... I don't want to say "smarter," but they could have done something else. I could have been a lawyer if I'd wanted to go that route. But I got into comedy.

Your comedy can be hilarious to some, highly offensive to others.

I started when I was 23 years old, and I didn't have a damn thing to say to anybody. Who would ever want to listen to one of my stories or get something out of it? I hadn't lived that interesting of a life. I thought that if I could just write jokes, take my act outside of myself, the world would be my oyster. And everything opened up: I could talk about whatever I wanted. I was more interested in subject matter and why things made people uncomfortable and why it was okay to make a joke about a tragedy a couple weeks later but not the day of. Could I

find the perfect joke and make people laugh the day of a tragedy?

On your show, you made a joke about the Newtown school shooting. The reaction of the audience was decidedly negative.

Not every joke has to be this big winner. Sometimes you gotta throw a fastball inside just to keep people on their toes. It's fun to approach a subject like that with complete disregard.

Twenty years ago, Andrew Dice Clay was savaged for his act. Some *Saturday Night Live* cast members even refused to go on if he hosted.

It was mostly Jan Hooks. It was going to be her last season anyway—she was just trying to get publicity. When you look back, it wasn't that big of deal. But it was crazy that she would not see him as an artist. It's like saying: "I'm not going to share the stage with Stephen King because he's killed so many people in his books."

Do you think you might have suffered the same treatment back then?

Sure, it's possible. But I think that every time that kind of thing happens, everybody takes a step back. Daniel Tosh got in trouble with the rape-joke controversy, but I have three of them in my special. It's not a big deal, because everyone kind of went crazy over him. It's like yelling "Wolf!"—the next time, people just aren't that interested.

What makes you laugh?

The unexpected ... and it's got to be a *smarter* joke. People think I must love dark humor. Not particularly—I do dark humor, but



I like the more absurd people. I hate easy comedy. If I get the punch line before you do, it's not good.

What's contributed more to your comedy, school or family?

I'd have to say school. I never got a good explanation for why I had to take calculus: If I don't care about *this*, but I'm passionate about *that*, why can't I just go do that?

I was in a public school that really didn't have a creative outlet for me. I'd make jokes in class, and they were always kind of darker and more inappropriate. That freaked people out, so they kind of made me feel I was wrong for a long portion of my life.

So how did you find your voice as a comedian?

I think a lot of comedians kind of just take their influences. I like Mitch Hedberg and I like Steven Wright. I started telling stories, and one day I saw a comedian— B.J. Novak, who's now a rich, famous person—doing oneliners, smart jokes. Some hit and some didn't, and I was like, "Wow! I can do that!" Steven Wright's a genius, but I thought, "I can't do that—I have to do something else."

So I thought, "What's the funniest thing in the world to me?" And it was "Deep Thoughts by Jack Handy" [from *Saturday Night Live*]. I loved those so much, but I found that deep thoughts, if said out loud, didn't always get a big laugh.

But I kept playing with the structure. And one day I told a mean version of a Jack Handy joke—and just the sound the crowd made, it was like a light-bulb moment. Everything fit, made sense to me. I started chasing that, and as I started chasing those jokes, my persona had to fit: I couldn't really be a nice guy.

There always seems to be a small glimmer that says you're just joking—maybe a slight smile. Absolutely, and I don't try to hide that. But it's got to be natural. I don't smile just to let the audience know I'm laughing that they're laughing at this shit. I don't feel the need to be like: "I'm just joking. We're all just having fun." I hate when comedians do that—I just *hate* it.

You have to cope with failure as a comic: You're either funny or you're not.

If you're not failing, you're



not getting better. If I have a great set, and I kill with a standing ovation, I walk offstage thinking, "I know comedy!" But when I have a bad set, I think, "How can I fix this? What can I do to get better so that it never happens again?"

If I'm doing crowd work like, "Hey, what do you do for a living?", and they say, "I'm an obstetrician," and I don't have a joke ready, that haunts me. The next time I'm in that situation—even though maybe it never happens again—I'm ready for it. Success doesn't teach you anything.

Have you ever regretted any of the jokes you've told?

No.

Not a one?

No, not one. If the joke fails, it doesn't matter; people are still being entertained. I'm still doing a good job, but I'm trying different things that might not work. But I've never been like, "Ah, that went too far."

Back to the Newtown joke: You were on really delicate ground, and the audience didn't buy into it at all. That's not a problem for you?

Not at all. Why does everything have to hit? Again, it's a fastball inside. Why not keep them kind of off-guard? That way, they don't know what's

"You don't need my thoughts and prayers. Let me try to make a joke, and if it doesn't work, I don't need applause."

coming next. A joke can fail, but it can still set up the next joke. I don't worry about that at all.

So you're not concerned with displaying sensitivity toward current tragic events—about crossing that invisible line?

Everyone's got their own line, and I don't care about any of them. I'm trying to go over that line and still make the joke work. I'm not doing it just to be a jerk; it's mostly wordplay, and I know little tricks of the trade, how to make someone laugh. Like the day of the Aurora shooting, I tweeted a joke: "Other than that, how was the movie?" [*HT* laughs.] Exactly. It didn't make you think of the victims or anything-it just made you laugh on that horrible day. But that was like a perfect version. I thought that I had nailed it.

But when the Boston Marathon bombing happened, I tweeted: "Guys, today there are just some lines that should not be crossed— especially the finish line." And people went crazy.

Crazy good or bad?

Bad. During Aurora, I was just a comedian. Now that I'm kind of a celebrity, people saw my name and the joke during the Boston Marathon. The joke isn't really offensive to anyone who was there, but it makes light of the situation, and that really turned people off. At Comedy Central, my bosses made me delete the tweet, which I didn't think was right. I felt it would have gone away and people would forget about it. The joke itself isn't about the victims; it's just about the event.

People say, "My thoughts and prayers are with you." I'm a comedian-you don't need my thoughts and prayers. Let me try to make a joke, and if it doesn't work, I don't need applause. I also don't think I should be punished for that. It's what I do. I don't feel the need to be extra-careful. I've created this persona so that I can talk about these horrible things; sometimes it works and sometimes it doesn't. But if I didn't try, that would be a failure.

Timing is critical to what you do. Do you labor over the construction of your jokes?

It comes naturally to me. I couldn't tell you the rules of grammar, but if I'm reading a book and the sentence is grammatically incorrect, I'm aware of it right away. I know what should be switched, but I can't tell you why. It's like that with the joke. I write it almost like a poem, like a deep thought that Jack Handy would write. The end of the line is where I might pause in the joke, to keep the audience just off-guard enough. When you slow the joke down enough, it invites them to try to guess the punch line. But then you take it away.

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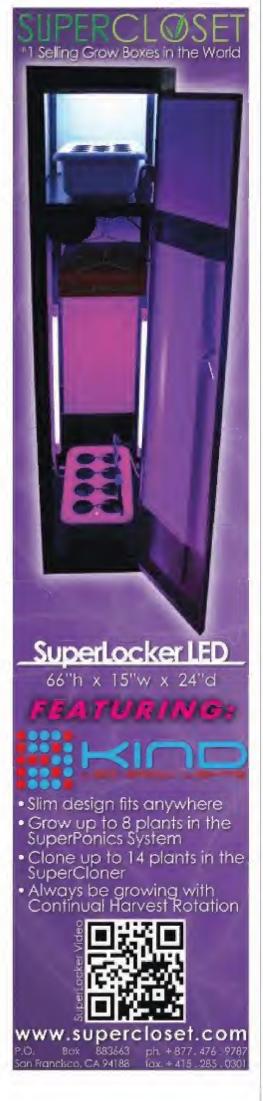
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I was an English lit major. I think just by reading so much, the construction of a joke became second nature.

Does political humor interest you?

I don't like political humor because you're preaching to your audience always. I'm a staunch liberal, but if I made a joke about being a liberal, the liberals are going to laugh, the conservatives aren't, and that's all you're going to get. I want everyone to laugh at *human* conditions, not just the political.

How is doing *The Jeselnik Offensive* different from standup?

The first show was a tough situation. You're doing your best and you're excited. I didn't feel nervous, but I felt unsure—you're trying to look as comfortable as you can, but it's a losing game. I didn't know how everything worked then. Now, by episode 10, it's a much different person up there.

It's also a completely different skill set than doing stand-up. If I'm doing standup and tell a joke, people laugh for 30 seconds—and I let them laugh for 30 seconds. But on the show, I've got to cut them off because I've got to keep it moving. That took a couple of episodes to get used to.

Do you ever write pot jokes?

I try to have a couple, but it's tough to write a good marijuana joke. You can joke about it—the silly stuff, the "I'm a stoner and I smoke pot" kind of thing. But I wouldn't consider myself a stoner in the way the culture does. A guy like Doug Benson can be goofy and talk about it and everyone loves it, but it really "People are getting smarter about it, and as the older generations pass on, I think marijuana will be everywhere in the next 20 years."

doesn't jive with my persona. But if I thought of something great, I'd be thrilled to have it.

Are you a medical patient here in California?

I have a medical card ... for anxiety or something.

Do you suffer from anxiety?

Occasionally. Everyone does. But if I didn't smoke, would I be okay? Of course.

I lived in New York for a few years, where they don't have a medical marijuana program; you had to use a delivery service or something. When I came back to LA, I thought, "I'm a known person now. I'm famous as being a comedian. Who the hell is going to bust me for marijuana? I don't need to get my medical marijuana card; I'll just get it where I get it." Then, within a week, a cop came up to me. I was smoking after a charity show I'd done-like backstage, it wasn't even in public—and the cop asked if I had my medical marijuana card. I lied and said I didn't have it on me. He gave me some crap, but let me go. I went out the next day and got my card, just to be safe. Why not?

Do you use marijuana at all to create?

I can't use it to *be* creative—I'm creative

without it. I just think it gives you a different angle. You build a sculpture and you think it looks pretty great, but then you smoke and you look at it from a different angle and you can see little things you can shave off or take in a different direction. Sometimes I've written jokes while high and think, "This is really funny." But the next day, I find it's just way too long and doesn't make sense ... why did I think this was so good? It's just a tool you can use, but to get the most out of it, you've got to use it effectively.

What misinformation about pot annoys you the most?

I hate that people call it a "gateway drug." I've done a lot of different drugs in my life—and if it wasn't for marijuana, I think I'd be doing heavier stuff. I enjoy drinking and I enjoy smoking. I think that smoking almost keeps me safe, you know what I mean? I drink less because of it. It helps me to medicate without doing too much damage to myself.

You know the quote "The answer to all your questions is money"? I think when people realize how much money can be made, what legalizing marijuana can do for the economy, but also turn away from the misinformation about it, then I think it will be generational breakthrough. People are getting smarter about it, and as the older generations pass on, I think marijuana will be everywhere in the next 20 years. I think it's weird what's going onbut I think we're moving towards something better. 💥

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Take clones two to three weeks before harvest. Germinate seeds about two months prior to harvest so they're ready to move into the flowering room. Open the windows and air the place out! It is also a great time to remove any rubbish or signs of cultivation in and around your grow area.



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subject: **Low-Odor Strain** from: **Xavier**

I'm a Belgian now living in Brazil, so what low-odor strain would you recommend for a guerrilla grow in a semi-arid climate in the southern hemisphere somewhere between the equator and the Tropic of Capricorn? It would preferably be a strain that flowers automatically at any time of the year under those conditions.

Dear Xavier,

It sounds like you're looking for an auto-flowering strain, most of which are already low-odor varieties. My favorite company for acquiring such strains is Dinafem out of Spain. They've been developing and experimenting with auto-flowering and feminized strains for many years and are at the forefront of this genetic technology. As for individual strains, I recommend their Moby Dick, White Widow or Haze Automatic. Good luck!

Danko Tip: Use a sharp razor blade for taking clones; scissors or serrated knives will damage the cut ends.

Pruning, when done properly, results in a denser canopy and larger harvests.

SUBJECT: **TO Prune or Not to Prune?** FROM: **JayBird**

I have one plant and she's doing great, so I must be doing something right. My question is this: Do I need to pinch her back? My husband keeps saying yes, but I've told him to leave it be or else! The plant is just shy of 12 inches tall and was started outside, but she's a houseplant now. I plan on beginning the 12-hour light/dark phase soon, so any advice is greatly appreciated.

Dear JayBird,

Pruning or pinching regimens are utilized by some growers to increase the amount of tops on their plants. Cannabis naturally wants to grow in a Christmas-tree shape with one dominant main cola. When that main top is removed, several other branches take on the dominant role and the plant develops a bushier profile.

This type of action should be done early in the vegetative stage and not when you're ready to induce flowering. If the plants are pruned or topped early, they still have time to recover and build big branches. When they're topped just prior to or during flowering, the yield will be greatly reduced because the plant hasn't had a chance to bounce back and grow stronger.

An even better option in the late stage of vegging is to weigh down the dominant cola with a fishing weight on a line. Any gentle bending technique will work as well, but you must be careful not to break the branch. The idea is to get the top branch to hang below some of the lower ones. The plant will then send hormones called auxins to change the growth pattern, which it does when the dominant branch has been cut—even though, in this case, it hasn't! This results in better production without actually removing any branches from your plant.

Lower leaves and branches can be removed if you determine that they are shaded out and won't be productive. Also, yellow leaves and dying branches should always be removed to avoid creating a home for pests and diseases.

SUBJECT: **Amsterdam Tripping** FROM: **Thomas**

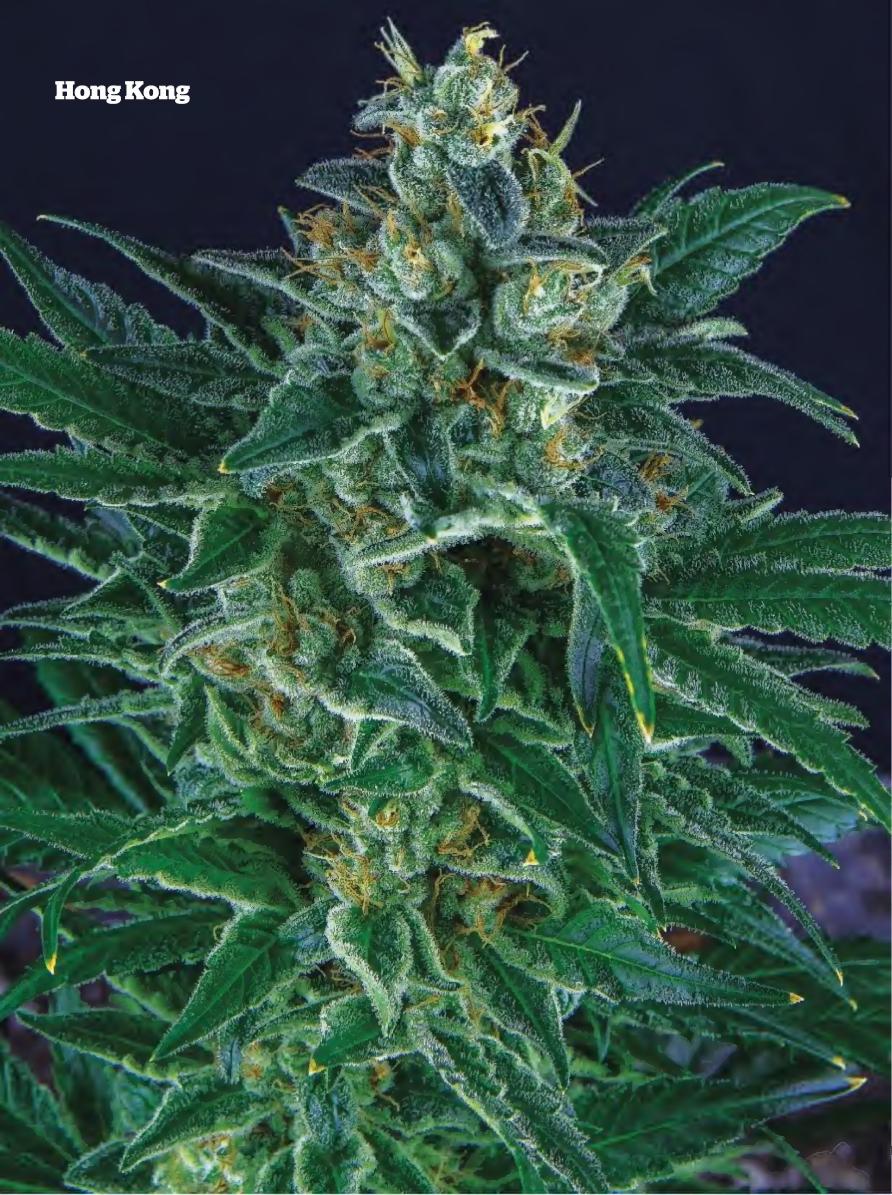
I'll be visiting Amsterdam for three days soon, and I'm looking for advice on what shops to visit and which strains to use. I would like to get out of the main tourist area, but not too far. Also, I don't just want to go there and smoke and not take anything different or positive away from it. I'd like to learn from this special plant.

So my question to you is this: Can you please recommend a coffeeshop to visit with a helpful staff, as well as a *sativa* strain that will give me a cerebral/spiritual high in the afternoon, followed by an *indica* in the evening to help me relax?

Dear Thomas,

Amsterdam is a wonderful city for more reasons than one. The coffeeshop scene is amazing, but there are plenty of other things to see as well. As for the coffeeshops, where else in the world can you walk into a comfortable, friendly environment and order cannabis and hashish off a menu and then smoke it at your table, all without a doctor's permission? Some of my favorites are De Dampkring, the Green House, the Grey Area and Bluebird. You should certainly stop by Barney's for breakfast and try a wonderful sativa named Dr. Grinspoon. For an *indica*, get yourself some Shoreline OG from the Green Place. Needless to say, a great time to visit would be this November for our 26th Annual High Times Cannabis Cup!

Also, be sure to visit the Cannabis College in the red-light district for a comprehensive lesson on marijuana use and activism (you can even take a garden tour). While in the area, stop by Sensi Seeds' Hash, Marijuana and Hemp Museum for a look at the history of our favorite flower. And don't leave the city



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102 Dear Danko

Danko Tip: Adding 5 milliliters of 15% hydrogen peroxide to your chemical nutrient solution in a hydroponic reservoir prevents harmful molds and bacteria.

without visiting the recently reopened Rijksmuseum as well as the Van Gogh Museum. Amsterdam is also home to the greatest number of Vermeer paintings in the world, so be sure to check out some real Dutch masters while you're there.

SUBJECT: Selfies
FROM: Fog

Nove your Free Weed podcast! | look forward to every episode to help carry me though the lifeless train ride into the city. Also, I wanted to say thank you for your support of the cannabis movement and for having the courage to go out there on behalf of all the people who don't. My question is whether there are products that allow you to "self" your strains? What (if anything) does this do to your seeds genetically? This might also be a good future topic for the podcast. Thanks for your time!

Dear Fog,

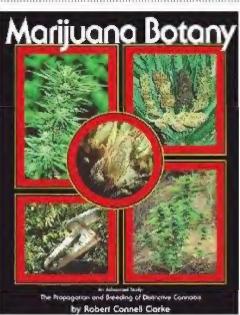
There are indeed several products on the market that allow you to "self" your plants. What this means is that you can shock the female plants into becoming hermaphrodites in order to collect pollen that is incapable of producing males. This pollen, when sprinkled back on your females, will result only in seeds that produce female plants (or hermaphrodites). This is how some breeders produce feminized seeds, and also how they get clone-only plants to produce seeds.

One product I can think of to induce this process is called Tiresias Mist. Some breeders also make their own sprays using gibberellic acid. The important thing to remember if you plan to experiment like this is that it's only the first step in a long process of seed selection; it is not the only or final step. And it's a good idea to read a book on cannabis breeding, such as Robert Connell Clarke's Marijuana Botany, before embarking on any genetic experiments.

SUBJECT. Strain Hunt

FROM: **PNW**

🔑 I'm a medical marijuana patient in Washington State and have been hearing great things about a strain called Old Toby. Any idea where I can get my hands on seeds or clones of it?



Read up on marijuana breeding principles before attempting to cross strains.

Dear PNW,

Old Toby is a strain developed specifically for medical use by Matthew Gordon, a med-pot patient himself who swears by its properties, including reversing shortterm memory loss and treating serious illnesses. He's been working with the variety for years, backcrossing it for the specific purpose of retaining its medicinal properties. At this time, the real Old Toby is available only at Choice Wellness Center on Aurora Avenue in Seattle, WA (choice*wellnesswa.com*). They're taking requests from growers and patients who want to experiment and discover more about this unique and healing strain.

SUBJECT: Soil Choices FROM Blue Ridge Grow

Love the podcast! My question has to do with growing mediums. I am a middleaged man living under the buckle of the Bible Belt, and most lawmakers here in the Southeast are not very supportive of pro-marijuana legislation. As a result, I am forced to grow in secrecy. And that brings me to my question: I'm a second-year grower with limited time and resources, and I really would like to simplify things a bit. It seems that my biggest issues have to do with feeding-l either give my plants too much or not enough. I'd like to know if you have a recommendation for a soil mix that would serve as an "all-in-one"? I need a mix that I can use for my seedlings/clones





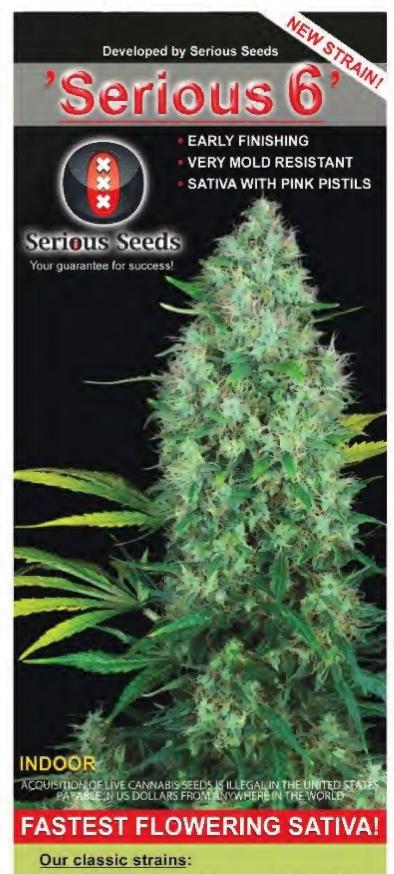
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104 Dear Danko

Danko Tip: Never let soil containers sit in stagnant water. It's best to drain runoff water from your overflow trays within an hour of watering.

and grow them out without supplemental feeding (i.e., using only water). Please keep in mind where I live: There are no grow shops near me, so I've been unable to find bat guano or earthworm castings and am trying to develop a mix from things readily available at places like Lowe's, Home Depot or the local farm supply. I'm growing indoors, and I also put a few outdoors in the summer. I'm using LED lighting (sorry, Danny, but it was a better fit for the grow area I have to work with and the lack of venting options), and I typically grow a few different strains at a time.

I hope that's enough info to answer my question, and thank you for furthering the cause of medical marijuana for those of us who can't speak out openly in favor for fear of losing our jobs or social standing or even facing legal persecution. I'd "like" you on Facebook if I could!

Dear BRG,

Thanks for the kind words on the podcast and the activism. Speaking out about the benefits of marijuana is my life's calling, so it's nice to hear what you have to say. One day we'll all be free to share our love of cannabis, and I truly look forward to that day.

As for a soil mix, I take it you're not interested in ordering anything off the Internet to be delivered, but your options would be greatly increased if you were. In that case, I would highly recommend Subcool's Team Green Avenger Super Soil (available at *tgasupersoil.com*). Otherwise, you're at the mercy of what's available in the store. I know Miracle-Gro has released an organic mix, but I can't find it in my heart to recommend anything sold by Scotts (look them up on the Internet to find out their many crimes against nature).

Your best bet is to purchase a bale of Pro-Mix (a peat-based soilless mix available at most home-goods stores) and then amend it with a few choice additives such as greensand, guano (which you can also find on the Internet) and dolomitic lime to buffer the pH. At this point, even Home Depot and Lowe's carry organic nutrient additives that you can use to supplement your soilless mix.

SUB IECT:	Reusing Soi					
FROM Sa	lsa Verde					
TRACTOR ADDRESS	IT CAN THE THE ATTACATO	ATTACTOR (11)	 	OTTENTION OF	III STREET	In-III III III III

I don't reuse soil, but here is my question: Since soilless mixes are all well and good, then, hypothetically, why would reusing soil be such a bad thing? Of course, the beneficial microbes and built-in nutrients would be lacking, but that's how non-soil mediums already are, and it's easy enough to plan for and compensate. I figured this might be a worthy question in relation to budgeting a grow, as well as addressing the inherent issue of waste.

Dear Salsa,

The problem with reusing soil is that anything harmful in it, such as pests or pathogens, will still be present when it's reused. Also, by the end of a plant's life cycle, the nutrients in the soil will be completely depleted, leaving it devoid of almost any beneficial microbes or foods. Starting from scratch and using new soil is worth every penny when growing indoors. Outdoors, reusing soil isn't as risky so long as you amend it with fresh nutrients and compost. $\frac{1}{2}$

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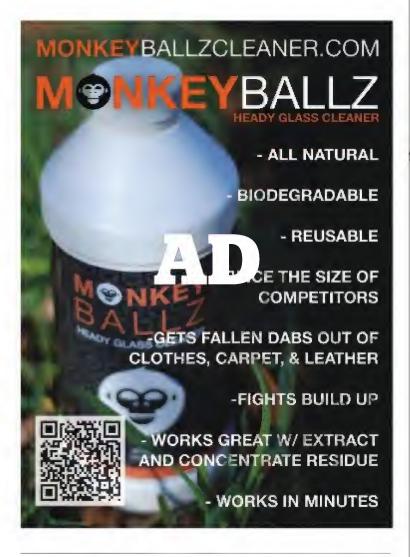
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106 Ask Dr. Mitch

Mangoes, witchcraft and quitting tobacco.

Can eating mangoes make your pot more potent?

Hi Popeye,

Popeye

Mangoes and cannabis both contain myrcene, a terpenoid that contributes to flavor and smell. Myrcene decreases pain and might have subjective effects similar to the "couchlock" that some folks attribute to indicas. Researchers haven't administered a standard dose to subjects who either have or haven't eaten mangoes, so we don't know if it really works. Fans of the practice might be unconsciously taking bigger hits or holding them longer. If myrcene really is the relevant mechanism, you'd have to eat at least four big mangoes. But any healthy diet will keep you sensitive to the plant. You might as well stick with spinach.

My cousin says that cannabis was part of the witches' Sabbath back in the day. Is there any truth to the idea?

Ozzy

Hi Ozzy,

At least one person believed that it was true: In the 1480s, Pope Innocent VIII (there's a paradoxical name for you!) condemned witchcraft and the use of hemp in what he called the "Satanic Mass." Many other plants were supposedly involved, including the hallucinogens henbane and belladonna. Burning opium might also have been part of the rite. Certainly, it must have differed from your average church service.



In the 1480s, Pope Innocent VIII condemned witchcraft and the use of hemp in what he called the "Satanic Mass."

Can herb help people quit smoking cigarettes?

Nick O'Tine

Hi Nick,

I always thought that this approach was a simple substitution whereby smoking one plant might allay the craving for another. But new data reveal that a cannabidiol inhaler used during craving helped cigarette smokers cut down their consumption by 40 percent. It was a small study, but it seems promising. Plants alone probably aren't enough to keep you off tobacco, though. Your tax dollars have already funded smokefree.gov, where you can get into some proven techniques for quitting. 💥

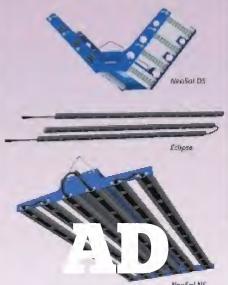
Dr. Mitch Earleywine, PhD, is an associate professor of psychology at SUNY Albany and the author of Understanding Marijuana and The Parents' Guide to Marijuana.

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Viva Tupamaros! Uruguay legalizes cannabis cultivation—leading the way as South America's coolest country.

Thanks to Juan Vaz, cannabis is now legal to cultivate in Uruguay. Vaz is the head of the AECU (Cannabis Studies Association of Uruguay), the activist group that has worked for years to end his country's ban on cannabis cultivation.

Uruguay just might be the coolest country in our hemisphere. In fact, it has never actually banned the recreational

Uruguay should be a model for the

the most overlooked country on earth.

rest of the world instead of being possibly

Remarkably, despite being a melting pot,

Uruguayan society has not been marked

by any serious racial bigotry. The waves

grants that descended on this tiny coastal

with the small native population. All races

country in the 19th century mixed freely

are found here, and intermarriage is the

There's a strong middle class and

little poverty, and thus very little crime.

Even the lowliest jobs are afforded a true

living wage, providing a sense of dignity

for all. The government and economy

have been so stable for almost the last

three decades that Uruguay is now called

the "Switzerland of South America." You

get a sense that the government actually

But it wasn't always this way. Uruguay

works for the people and not multina-

had to fight hard for independence, as

many nations in both the old and new

and white sandy beaches. In the 1960s,

a socialist group called the Tupamaros

worlds coveted its sheltered harbors

norm, not the exception.

tional corporations.

of mostly Spanish and Italian immi-

use of any substance, although there have been laws against the manufacture and sale of some plants—laws that were loosely enforced, if at all. Indeed, Vaz has cultivated his own cannabis for years. Previously, if he was asked by police where he got his stash, he was forced to lie and say something like "It fell out of a palm tree." Now Vaz can tell them the truth: He grows it.



Uruguay has ended its ban on cannabis cultivation.

battled against a brutal military dictatorship that was slowly stripping the citizens of all civil rights. Led by Raúl Sendic, the Tupamaros became famous for robbing banks and kidnapping bank presidents. Most of the stolen money was distributed to the poor, while the presidents were held for ransom in the Tupamaros' secret "people's prison," which had over 100 detainees at its peak.

> Eventually, Sendic was captured and tortured for years. He may have lost the battle, but his troops eventually won the war. In 1984, civilian rule returned and, in 2009, José "Pepe" Mujica, a former Tupamaro guerrilla, was elected president. Pepe is famous for donating 90 percent of his \$150,000 salary to the poor. He drives an ancient VW bug and tends to his chrysan-

themum farm outside Montevideo, the country's capital, where half of its threemillion-plus inhabitants reside.

I expect a surge of cannabis tourism, and I pray that these pilgrims treat Uruguay with respect. Since there's virtually no violent crime in this gentle country, let's hope it becomes a sanctuary for peaceful people seeking a refuge from the random violence that seems to be overtaking the rest of the planet.

In Montevideo, a one-bedroom condo with a garage will cost around \$120,000 to purchase or \$1,200 a month to rent, though you can find something much cheaper out in the sticks. The Costa de Oro (Gold Coast) is where most tourists head, a 30-mile stretch of beach that starts just 20 miles outside Montevideo. This area is often compared with the European Riviera, although it's much less populated. You can find a nice twobedroom beach house for \$500 a month, or buy a palace with a swimming pool for around \$200,000. Practically no one speaks English, however, so if you plan to visit, start learning Spanish, and keep in mind that the natives speak a blend of Spanish and Italian that has its own peculiar slang and accents. 💥



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And to make things even more fun, we added a new shallow jar that holds half an ounce; this is the Small Wide-Mouth.

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110 Almost Infamous by @BobbyBlack



Making News A search for answers regarding a friend's murder lands your humble narrator on CNN.

I've always considered myself more of a writer than a journalist. Journalists spend hours researching issues, confronting powerful people and putting themselves in dangerous situations to get their story. Me? I just interview activists and get high with celebrities. But once in a while, a real story comes along that I feel compelled to cover, and so I have to step up my game.

For instance: In June 2010,

I wrote a feature about US veterans who were being refused treatment by the Veterans Administration for their use of medical marijuana. Then, earlier this year, I learned that Boston Marathon bombing suspect Tamerlan Tsarnaev had been implicated in a

2011 triple murder in Waltham, MA-of which one of the victims was my friend Erik Weissman, the co-founder of Hitman Glass-and I began following the case devotedly. After scouring the Internet for even the most obscure information and combing through every story I could find, I realized that the most important questions were not being adequately addressed. Vowing to use my own modest media voice and personal connection to Erik to help search for answers, I aggregated all of the facts, theories and testimony I could find and wrote two investigative articles for HT's website on the topic, which I then combined into a single piece for the magazine (Sept. '13). Apparently, my work didn't go unnoticed: On Saturday, July 13, I was contacted via Facebook by Stephen Samaniego, a producer with CNN. He'd read my articles online and asked if I'd be willing to come in for an interview.

At 9 a.m. on Monday morning, I entered Facel the Time Warner Building (conveniently I rece located just around the corner from *HT* sister headquarters) and headed up to the offices "M of CNN. There, I sat down with national it's a correspondent Deborah Feyerick for a 15-minute interview about my relationship with Erik and my thoughts on his murder. Watch the full CNN report at hightimes.com/

"Anyone who knew Erik would know that he was in no way some kind of dangerous drug dealer," I told her. Most of all, Feyerick wanted to know if I thought the Waltham police had done an adequate job of investigating the three deaths. My answer was no, pointing out that their "drug rip-off gone wrong" theory made no sense since the cash and the weed were left at the scene.

"They didn't take the money and they didn't take the drugs," she reiterated.



"Right," I answered, "and I think that the police writing it off as [a drug rip-off] early on may be the reason they didn't investigate further, which could've possibly prevented the Boston bombings." The following night,

CNN aired the report featuring my interview on Erin Burnett OutFront. The producers ended up using only two sentences from that 15-minute interview, omitting my comments about how the cops' "drug rip-off" theory was a red herring and that a motive of religious zealotry seemed far more in keeping with the facts of the case. Nevertheless, I commend CNN for continuing to follow this story and was honored to have been asked to participate in it. Since a national cable news network has considerably greater resources—in terms of money, access and credibilitythan I do, I sincerely hope CNN continues to demand answers from both the FBI and the Waltham police regarding this seemingly mishandled case. I know I will.

While being acknowledged by CNN for my efforts was gratifying, it's nothing compared to being acknowledged by Erik's family. After sharing a link to the report on a Facebook page dedicated to Erik's memory, I received the following message from his sister Aria, who manages the page:

"Much appreciated, Bobby!!! I know it's all love with my brother from you! I

loved the questions you posed back to the *New York Times*. You asked the right ones. Thank you for keeping his memory alive and continuing to fight for justice to be served!"

No need to thank me, Aria—it's my job ... I'm a journalist. 💥

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Allen St. Pierre is the executive director of NORML. Visit norml.org.

G one are the days when policymakers and propagandists claimed that cannabis causes criminality, induces males to develop breasts or alters human genetics forever by damaging chromosomes. Instead, the questions directed at cannabis-law reform advocates these days are both forward-looking and unsensational. A ready example: "How much revenue can be derived from legal cannabis commerce, and how many jobs will it create?"

Obviously, the amount of tax revenue and license fees depends on a state's size and population; so, too, does the number of jobs created. Judging by the current employment numbers, as well as the regulatory schemes set up by state and federal governments for alcohol and tobacco products, it's clear that when cannabis is legal, tens of thousands of new jobs will be added to the economy and tax rolls at the local, state and federal level. Also, numerous jobs that already exist in the current "gray market" for medical cannabis will go from being illegal-meaning no tax benefits for society or accrued social benefits for the individual worker-to legal. Some of this has already happened in states like California, where many of the workers employed by medical cannabis dispensaries in Los Angeles and the Bay Area are members of a large public union, the UFCW (United Food and Commercial Workers).



In the future, transporters, cultivators, rippers, cutters, processors and packagers will all morph from being "criminals" to being part of a legal industry. In each of our 50 state capitals, state regulatory agencies will monitor, regulate and tax cannabis commerce in the same way that states regulate and collect taxes on tobacco, alcohol, casinos, lottery tickets and so on. Moreover, consumer organizations in these states will work in concert with national groups-think of a Consumer Reports or Public Interest Research Group (PIRG) model for cannabis consumers-to make sure that high-quality cannabis is being produced, as well as advocating for reasonably low taxes and pragmatic government restrictions and advocating against corporate dominance (the potential "Monsantoization") of the cannabis industry.

Thousands of jobs related to qualitycontrol testing and safety assurance will be created in order to provide labeling information for fully informed consumer choices. Ending cannabis prohibition will also spur construction and design jobs for cultivation and processing facilities. And don't forget retail space—think Starbuds, not Starbucks!

When locally grown and sourced cannabis is freed from the shackles of prohibition, thousands of secondary jobs in cannabis tourism (most notably in nearby hotels, eateries and stores) will emerge. And as cannabis prohibition ends, the illogical prohibition on industrial hemp will end with it. New jobs in agriculture, farm-equipment manufacturing and processing will be "repatriated" from countries like Canada, France and the United Kingdom, which long ago allowed their farmers to cultivate hemp domestically.

Last but not least, with legal business comes capital formation and speculative investment. In time, with hundreds of public companies associated with cannabis, phalanxes of financial, business and agricultural analysts will be employed by major institutions, both in and out of government, to hourly track the economic value of the sector.

Naturally, there will be some economic losers after cannabis is legalized in America. Pee-testers, narcotics officers and prison-guard unions will find their ranks thinned. And those who work for anti-pot propaganda outfits like DARE will need to find gainful employment. *****

FREEDOM FIGHTER

Angell's Fire

For over a decade, Tom Angell has been blazing a path in marijuana-law reform.

Tom Angell started his activist journey in the Ocean State, where he attended the University of Rhode Island and joined what would become the URI chapter of Students for Sensible Drug Policy. In 2002, he formed the Rhode Island Patient Advocacy Coalition, which helped to enact the state's medical marijuana law. to Washington, DC and began working at the national SSDP office as media director. He worked there for four years before leaving to take a position with Law Enforcement Against Prohibition, where he helped spread the message of concerned criminal-justice professionals who had witnessed firsthand the devastation caused by the War on Drugs.

Two years later, he moved



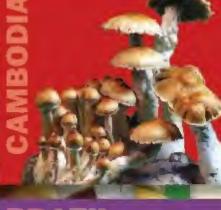
quotes from public figures who have spoken out in favor of reforming marijuana laws. In one of its first major projects, the Marijuana Majority led a coalition of groups that successfully introduced and passed a resolution at the US Conference of

by Erik Altieri, NORML communications coordinator

Mayors calling for the federal government to respect state and local marijuana laws.

"Moving forward," Tom says, "Marijuana Majority is in the very early stages of planning a groundbreaking new effort that will take advantage of cutting-edge technologies to encourage people to come out of the cannabis closet. This will significantly change how the public and policymakers view people who use marijuana—and the laws that currently criminalize them." Homestead Book Company • P.O. Box 17444, Seattle, WA 98127 • www.homesteadbook.com • Order Toll-Free TODAY at 800-426-6777

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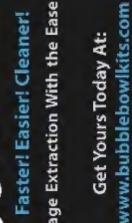


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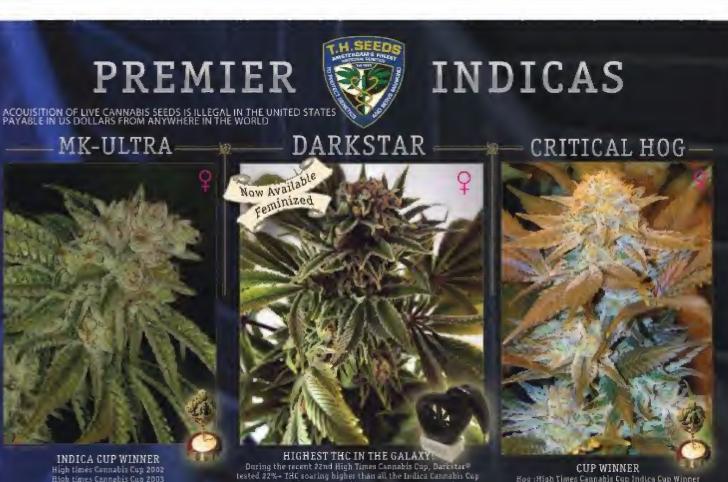
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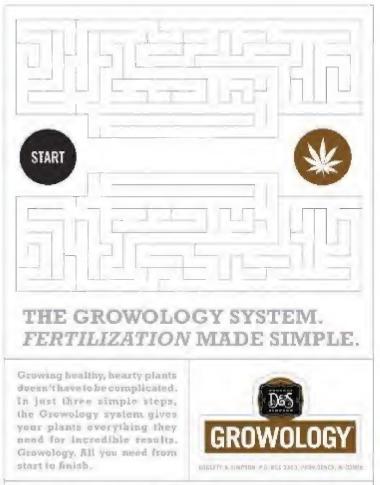
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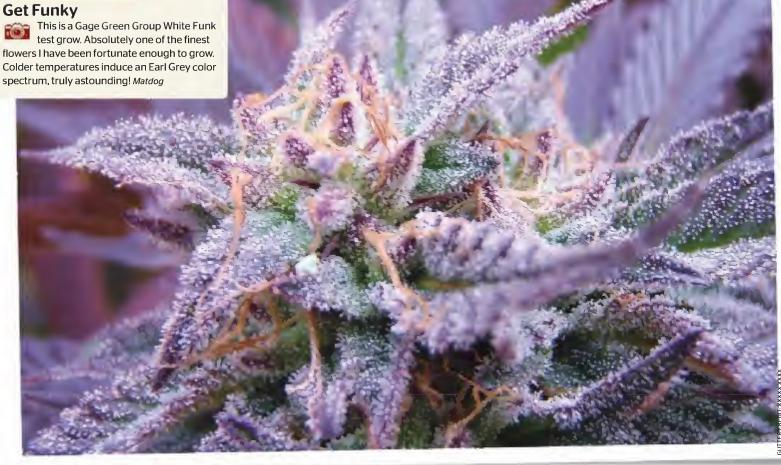


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CLOSE-UP OF THE MONTH

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COLA OF THE MONTH

Huge Top I'm sending a shot of a fine cola of the Bubba. It was around 22" and weighed about 2lbs! This was one of the last large ones to be harvested, and I harvested around a month early...I spent close to 175 hrs trimming/manicuring the outdoor grow, took me over a month! New Mexico Dave





Frosty Green Avenger Vive been using the TGA Bagged Super Soil and sugars only. All organic, hope you guys enjoy. The strain is BlueJ (Jillybean x Oregon Blues.) Geek Mike



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Autumn was bountiful, as always.



The Great Outdoors

As hard-working growers in California and Colorado cut down their outdoor crops, editorial director Dan Skye was on hand to witness the spectacle. Experience the joys of harvest up close!

Seattle Celebration

The first U.S. High Times Cannabis Cup in Seattle welcomed activists, growers, businesses and the adult stoner community for a two-day salute to Washington's newfound freedom. Slightly Stoopid and Redman rocked the crowd and the best buds in the state got their recognition.

LA Glory

The Buds and Roses Collective of Los Angeles provides highquality medical cannabis in all forms and the world has taken notice. The good folks there have won multiple Cannabis Cups. We cover their success story.

The Best Vapor Pens

Last year, we tested and rated 15 different pocket-sized vaporizers to determine which were worthy of your stash and which deserved to go in the trash. Since then, a slew of new vape pens has hit the market. Once again, we separate the best from the rest!

Gupta for Ganja

Dr. Sanjay Gupta has added his voice to the ever-growing call for marijuana as medicine. CNN's Emmy award-winning chief medical correspondent has reversed his position on medical pot. The doc explains why in our feature interview.

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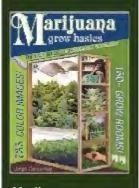


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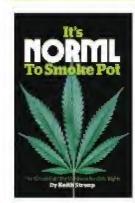
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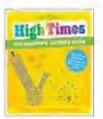
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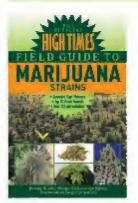


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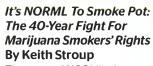
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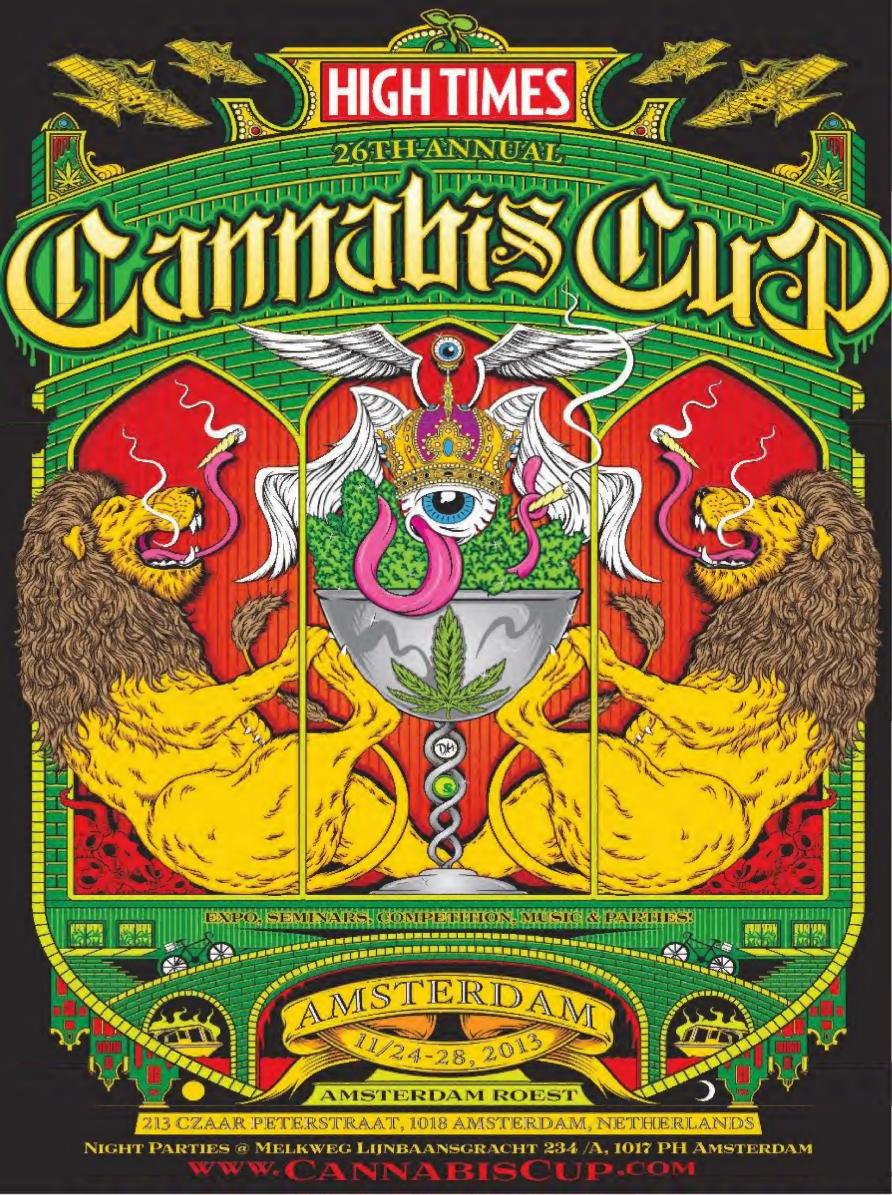
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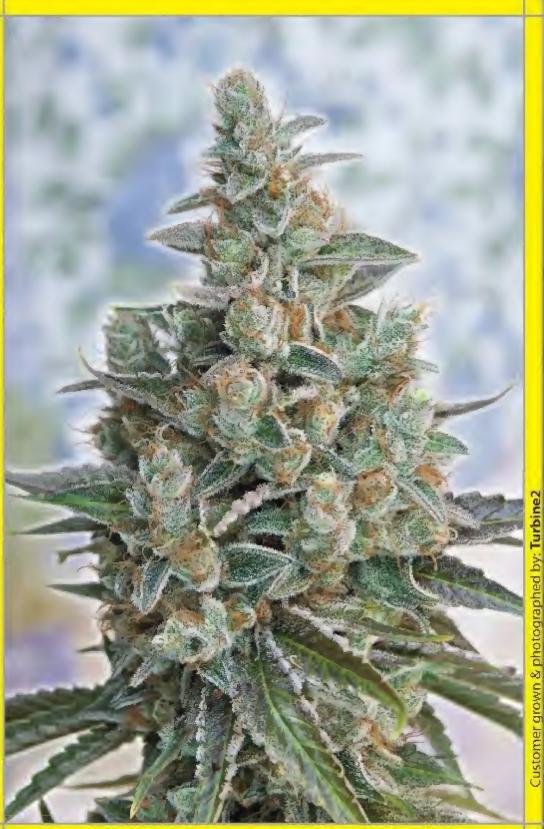






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